Central Contra Costa Sanitary District
5019 Imhoff Place, Martinez, CA 94553 (925) 228-9500 • www.centralsan.org

REQUEST FOR BID
RFB NO. 08-09-03
TOSHIBA 15 KVA UPS BACKUP SYSTEM

INQUIRIES: Direct questions for clarification of this Request for Bid to Chris Newkirk, Senior Buyer.

Telephone: (925) 229-7352
Fax: (925) 825-1437
E-Mail: cnewkirk@centralsan.dst.ca.us

SUBMITTAL: **One (1) signed original and two (2) copies of the signed bid must be received on or before:**

2:00 p.m., Thursday, April 30, 2009

Bids received after the time and date stated above shall be returned unopened to the vendor.

Addressed to: Chris Newkirk, Senior Buyer
Central Contra Costa Sanitary District
5019 Imhoff Place
Martinez, CA 94553-4392

Mark envelope: **"Toshiba 15 KVA UPS Backup System – RFB 08-09-03"**

NOTICE TO CONTRACTORS
INVITING SEALED BIDS
FOR
CENTRAL CONTRA COSTA SANITARY DISTRICT
REQUEST FOR BID 08-09-03

NOTICE IS HEREBY GIVEN THAT the Board of Directors of the Central Contra Costa Sanitary District (District), Martinez, California, invites and will receive sealed bids for furnishing all equipment and materials specified for the supply of a Toshiba 15 KVA UPS Backup System under Central Contra Costa Sanitary District Project 7265, Treatment Plant Equipment Replacement Project. The equipment generally consists of a Toshiba 15 KVA UPS Backup System with an estimated cost of $30,000.

The District will receive bids at its receptionist area until 2:00 p.m., local time per the Atomic Clock, April 30, 2009, at 5019 Imhoff Place, Martinez, California, at which time and place, in the District Board Meeting Room, accepted bids will be publicly opened and declared aloud by the Secretary of the District, and before the General Manager, or his representatives. **NO LATE BIDS WILL BE ACCEPTED.**

Copies of Request For Bid 08-09-03 and the plan holder's list may be obtained at no charge at the District's Purchasing Department, 5019 Imhoff Place, Martinez, California or by calling 925-229-7352. Request For Bid 08-09-03 may also be downloaded from the District's website under "Bid Opportunities" at http://www.centralsan.org/index.cfm?navid=289.

Inquiries regarding further information about the Project may be directed to Chris Newkirk at telephone number 925-229-7352.

Inquiries regarding directions to the District office and the location of the receptionist area may be directed to the District's receptionist at (925) 228-9500.

The District Board of Directors reserves the right to reject any or all bids for the work and waive any non-material irregularities in bids received.

Dated at Martinez, California, this March 25, 2009.

s/s Elaine R. Boehme
Elaine R. Boehme
Secretary of the District
Central Contra Costa Sanitary District
County of Contra Costa, State of California

KEY INFORMATION
RFB NO. 08-09-03 TOSHIBA 15 KVA UPS BACKUP SYSTEM

Information Sole Point of Contact	**Chris Newkirk, Senior Buyer** **5019 Imhoff Place** **Martinez, CA 94553** **925-229-7352** **925-825-1437 Fax** **cnewkirk@centralsan.dst.ca.us**
Final Questions or Comments Due	**5:00 p.m., Thursday April 23, 2009**
Bid Due Date	**2:00 p.m., Thursday, April 30, 2009**
Number of Copies of Bid Due	**One (1) Signed Original – Two (2) copies**

A. All information requested of the contractor shall be entered in the appropriate space(s) on the Bid Form. Failure to do so may disqualify your offer.

B. All information shall be typewritten or entered in ink. Mistakes may be crossed out and corrections inserted before submission of your bid. The person signing the bid shall initial corrections in ink.

C. Corrections and/or modifications received after the closing time specified will not be accepted.

D. Bids will not be accepted unless signed (not typed) in the appropriate space(s) by an authorized officer or employee of the contractor.

E. To be considered, bids must be submitted by, or prior to, the closing date and time specified.

F. It is the sole responsibility of the contractor to see that their bid is submitted in the proper time. Any bids received after the closing date shall be returned, unopened, to the contractor, provided the request number, opening date, and contractor's return address are on the envelope.
Bid Due Date: Thursday, April 30, 2009 @ 2:00 P.M.

G. Upon submission of RFB documents, all such documents shall become the property of the District.

H. Provide any other information not specifically requested which may be considered by the Purchasing Division. However, the Purchasing Division is not obligated to consider any information not specifically requested in this Request for Bid.

I. The District shall not be responsible for any error or omission in the bid.

J. Prices submitted by contractor are considered accurate and cannot be withdrawn after the bid is closed.

K. Quoted prices shall remain open and valid, subject to acceptance for ninety (90) days after RFB closing date. Any bid for which the contractor specifies a shorter acceptance period may be rejected.

L. Prices will be considered Net if no cash discount is shown.

M. The District generally solicits bids from a wide variety of vendors that may include retailers, wholesalers, suppliers, distributors, etc.

N. The words "Bidder", "Vendor", "Supplier", and "Contractor" are used interchangeably throughout this solicitation, and are used in place of the person, firm, or corporation submitting a bid on these specifications, or any part thereof and also refer to the party entering into a contract with the District as a result of this solicitation.

O. The term "specification" as used in this solicitation shall be interpreted to mean all the pages that make up this solicitation, including *but not limited* to the Instructions To Bidder, General Conditions, Specifications or Scope of Work, Contractor's Bid Form, Non-Collusion Affidavit, Equal Employment Opportunity Compliance Certificate, Workers' Compensation Insurance Certification, Insurance Coverage Statement, OSHA Compliance Statement Confidentiality Agreement, Experience Statement, Contractor Guaranty Statement and Bid Security and the Performance and Payment Bonds.

P. Bids should be mailed or delivered to:

Central Contra Costa Sanitary District
Attention: Chris Newkirk, Senior Buyer
5019 Imhoff Place
Martinez, CA 94553-4392
Fax: 925-825-1437

GENERAL TERMS AND CONDITIONS
RFB NO. 08-09-03 TOSHIBA 15 KVA UPS BACKUP SYSTEM

1.01 INTENT

The Central Contra Costa Sanitary District is requesting bids from licensed, qualified, experienced and reputable contractors for **Toshiba 15 KVA UPS Backup System.** **One (1) original and two (2) copies** of the bid, signed by an official authorized to bind contractor, is to be submitted to Chris Newkirk, Senior Buyer, 5019 Imhoff Place, CA 94553-4392, **on or before 2:00 p.m., Thursday, April 30, 2009**.

1.02 INFORMATION

The Purchasing and Materials Services Division is issuing this Request for Bid and the Senior Buyer is the sole point of contact for the Request for Bid. Unless otherwise directed, all communications regarding this Request for Bid should be directed to:

Chris Newkirk, Senior Buyer
Central Contra Costa Sanitary District
5019 Imhoff Place
Martinez, CA 94553-4392
Telephone (925) 229-7352 Fax (925) 825-1437
Email cnewkirk@centralsan.dst.ca.us

Bidders are specifically directed to contact the Senior Buyer to arrange for meetings, conferences or technical discussions related to this Request for Bid. Failure to adhere to this policy may be grounds for rejection of bids.

1.03 ADDENDA TO THE REQUEST FOR BID

Important Notice - Any revisions to the Request for Bid will be issued and distributed as addenda. The District will not be responsible for oral interpretations given by any District employee, representative, or others. Bidders are cautioned that any statements made that materially change any portion of the bid documents shall not be relied upon unless subsequently ratified by a formal written amendment to the Request for Bid document. The issuance of a written addendum is the only official method whereby interpretation, clarification, or additional information can be given.

It is the responsibility of each bidder to ensure that the District has their correct business name and address on file. Any prospective bidder who obtained a set of contract documents from anyone other than the District is responsible for advising the District that they have a set of contract documents and wish to receive subsequent addenda.

If any addenda are issued to this Request for Bid, the District will attempt to notify all prospective bidders who have secured same. However, it will be the responsibility of each bidder, prior to submitting their bid, to contact Chris Newkirk, Senior Buyer, 5019 Imhoff Place, CA 94553-4392, (925) 229-7352 to determine if addenda were issued and to make such addenda a part of the bid. The District reserves the right to revise or amend the specifications up to the time set for opening the bids. Any addenda or bulletins issued shall constitute a part of the contract documents.

Bidders shall acknowledge receipt of any addenda to the solicitation by signing and returning the addenda with the bid and by identifying the addenda numbers and dates in the space provided for this purpose on the bid form.

1.04 CONTRACTING ENTITY

The contract resulting from this Request for Bid will be administered by the Administration Department. The Project Manager will be assigned at the time of a contract is issued.

1.05 QUESTIONS AND COMMENTS

Questions and comments regarding this solicitation that arise subsequent to the pre-bid conference, must be submitted in writing, either by mail or facsimile to the Senior Buyer, **no later than five (5) days before the bid closing date**. The questioner's company name, address, phone and fax numbers and contact person must be included with the questions or comments. Questions and answers thereto shall be provided all prospective bidders; however the name of the vendors submitting questions shall not be disclosed. Submit questions or comments to the following address:

Central Contra Costa Sanitary District
Attention: Chris Newkirk, Senior Buyer
5019 Imhoff Place
Martinez, CA 94553-4392
Fax: 925-825-1437

1.06 CONTRACT DOCUMENTS

Contract documents may be inspected and obtained in the Purchasing Division or by calling 925-229-7352. Contract documents may also be downloaded from the District's website at http://www.centralsan.org/organization/purchasing/welcome.html. No bid will be received unless it is made on a bid form furnished by the District. Failure to submit a bid on the form provided shall be considered just cause for rejection of the bid. Modifications or additions to any portion of the contract documents may be cause for rejection of the bid. However, the District reserves the right to decide, on a case-by-case basis, whether to reject as non-responsive, a bid with modifications or additions.

When a bid is signed by an agent, other than the officer or officers of a corporation authorized to sign contracts on its behalf, or a member of a partnership, a "Power of Attorney" must be on file with the District prior to the date and time set for receipt of bids or shall be submitted with the bid; otherwise, the bid will be rejected as irregular and unauthorized.

1.07 PRICING

Unit or lump sum prices shall, with full consideration of all provisions, conditions, requirements and specification contained and referenced herein, include all costs pertinent to the total work as specified. Contractor shall submit unit prices, in figures, for all items listed in the Bid Form. Unit prices shall establish the basis of value upon which the work will be measured for payment to the contractor.

1.08 TAXES, FREIGHT AND OTHER APPLICABLE CHARGES

Required taxes, delivery cost, and any and all other applicable charges, must be included in the bid. The District is **not exempt** from California State Sales Tax. The District **is exempt** from Federal Excise Tax.

1.09 SUBMISSION OF BID

This is solicitation has a firm date and time due. It is solely the responsibility of the bidder to ensure that their bid is received by the District, in accordance with the solicitation requirements, prior to the deadline and at the place specified. In no event will a bid be considered if it is received after **2:00 p.m., Thursday, April 3, 2008**. Any bid received after the closing date will be returned, unopened, to the bidder, provided the bidder's return address is on the envelope. Notwithstanding any provision specified herein, the District reserves the right to extend the bid submittal deadline when it is in the best interest of the District.

Bids must be submitted under sealed cover and clearly marked as "**Toshiba 15 KVA UPS Backup System – RFB 08-09-03**" and the bid closing date and time must also be included on the envelope. The envelope shall also include the name and return address of the bidder. The District will not be responsible for bids received late due to Contractor's failure to identify the bid as required hereunder.

Bids may be submitted by hand, by courier, by U.S. Mail or by any other method specified herein. If the bid is submitted by mail, bidders should allow ample mail delivery time to ensure the timely receipt of their bids. The

District will not be responsible for any delays in mail or by common carriers or by transmission errors or delays or mistaken delivery. Delivery of bid shall be made at the office specified in the Request for Bid. Deliveries made before the date and time due, but to the wrong District office, will be considered non-responsive unless re-delivery is made to the office specified before the date and time due specified in the Request for Bid. Bids shall be mailed or delivered to:

Chris Newkirk
Central Contra Costa Sanitary District
5019 Imhoff Place
Martinez, CA 94553-4392

Quoted prices must remain open and valid, subject to acceptance for ninety (90) days after bid closing date. Any bid for which the bidder specifies a shorter acceptance period may be rejected. The bidder agrees that submission of a signed bid will be interpreted to mean bidder agrees to all the terms and conditions set forth in all the pages of this Request for Bid and is certification that the bidder will accept an award made to it as a result of the submission.

1.10 PRIME CONTRACTOR

Only one bid may be submitted as a "prime contractor" for the same work by any firm, individual, partnership, corporation or combination thereof. A contractor submitting a bid as a prime contractor may not also submit bids as a subcontractor to other competing prime contractors. Reasonable grounds for believing that any individual, firm, partnership, corporation or combination thereof is interested in more than one bid for the work contemplated will cause the rejection of all bids in which such individual, firm, partnership, corporation or combination thereof is interested. Nothing in this clause shall preclude a firm acting as subcontractor to be included as a subcontractor for two or more primary contractors submitting a bid for the work. A contractor who is not submitting a bid as a prime contractor may submit any number of bids as a subcontractor to competing prime contractors.

1.11 SUBCONTRACTORS

In accordance with Sections 4100 – 4114 inclusive, "Subletting and Subcontracting Fair Practices Act", of the California Public Contracts Code, any person making an offer to perform work, shall, in his or her offer, set forth the name and location of the place of business of each subcontractor who will perform work or labor or render service to the prime contractor in an amount in excess of one-half (1/2) of one percent (1%) of the prime contractor's total offer. The prime contractor shall list only one subcontractor for each portion as is defined by the prime contractor in his or her offer. If a prime contractor fails to specify a subcontractor, or if the prime contractor specifies more than one subcontractor for the same portion of work to be performed in excess of one-half (1/2) of one percent (1%) of the prime contractor's total offer, the prime contractor agrees that he or she is fully qualified to perform that portion himself or herself, and that the prime contractor shall perform that portion himself or herself. If after the award of contract, the prime contractor subcontracts, except as provided in Sections 4107 or 4109, any such portion of the work, the prime contractor shall be subject to the penalties named in Section 4111.

1.12 CONTRACTOR'S POWER AND AUTHORITY

Contractor, in submitting a bid, warrants that it has full power and authority to comply with the requirements specified herein and will hold the District harmless from and against any and all loss, cost, liability, and expense (including reasonable attorney fees) arising out of any breach of this warranty. Further, Contractor affirms that it will not enter into any arrangement with any third party, which might abridge any rights of the District under this Contract.

1.13 EXPERIENCE AND COMPETENCY

Contractor represents that it is fully experienced and properly qualified to provide the goods and/or services required herein, and that it is regularly engaged in the general class or type of work called for under the contract, properly licensed, equipped, organized, and financed to perform such work required herein. The successful bidder shall also have no less than three (3) years' experience in the magnitude and character of the work bid.

1.14 DEBARMENT

By submitting a bid, the bidder certifies that it is not currently debarred from submitting bids or bids for contracts issued by any political subdivision or agency and that it is not an agent of a person or entity that is currently debarred from submitting bids or bids for contracts issued by any political subdivision of agency.

1.15 EXAMINATION AND ACCEPTANCE OF CONTRACT REQUIREMENTS

Before submitting a bid, bidders must satisfy themselves by personal examination of the contract documents, and by any other means as they may believe necessary, as to the actual conditions, requirements, and difficulties under which the work must be performed and to verify any representations made by the District, upon which the contractor will rely.

The submission of a bid shall be considered conclusive evidence that the bidder has carefully investigated all conditions that affect, or may at some future date affect, the performance of services covered by this solicitation, and is satisfied as to the character, quality, and quantities of work to be performed and as to the requirements of the Request for Bid. Submission of a bid shall also be evidence that the bidder is familiar with directives that in any way affect prosecution of the work or persons engaged or employed in the work.

No bidder shall at any time after submission of a bid make any claim or assertion that there was any misunderstanding or lack of information regarding the nature or amount of work necessary for satisfactory performance under the contract. If the bidder receives an award as a result of this Request for Bid, failure to have made such investigations and examinations will in no way relieve the bidder from its obligations to comply in every detail with all provisions and requirements of the contract documents, nor will a plea of ignorance of such conditions and requirements be accepted as a basis for claim whatsoever by the bidder for additional compensation. Any errors, omissions, or discrepancies found in the specifications or other contract documents shall be called to the attention of the District and clarified prior to the submission of a bid.

Should the bidder feel there has been a supplemental or oral modification, it shall be the bidder's responsibility to verify said modification in writing prior to submission of the bid.

The contents of the bid of the Successful Bidder shall become contractual obligations if procurement action ensues. Failure to accept these obligations in a contractual agreement will result in cancellation of award. Conditional or qualified bids, unless specifically allowed, will be subject to rejection, in whole or in part.

1.16 MODIFICATION OF BID

Any bidder who wishes to make modifications to a bid already received by the District must withdraw his bid in order to make the modifications. Withdrawals must be made in accordance with the terms and conditions of this solicitation (see Withdrawal of Bid). All modifications must be made in ink, properly initialed by bidder's authorized representative, executed, and submitted in the same form and manner as the original bid. It is the responsibility of the bidder to ensure that modified or withdrawn bids are resubmitted before the time announced for the opening of bids.

1.17 WITHDRAWAL OF BID

Any bid may be withdrawn at any time prior to the time fixed in the public notice for the receipt of bids, only by written request for the withdrawal of the bid filed with the Purchasing Division. The bidder or his duly authorized representative must execute the request. The withdrawal of a bid does not prejudice the right of the bidder to file a new bid. No bid may be withdrawn after the time fixed in the public notice for the receipt of bids.

1.18 EVALUATION AND AWARD OF CONTRACT

It is the intention of the District to award a contract to a bidder who furnishes satisfactory evidence of having the requisite experience, ability, sufficient capital, and facilities to enable him to prosecute the work successfully and properly, and to complete it within the time specified in the contract. To determine the degree of responsibility to be credited to the bidder, the District will weigh any evidence that the bidder has performed satisfactorily other

contracts of like nature, magnitude, and comparable difficulty and comparable rates of progress. In selecting the lowest responsive and responsible bidder, consideration will be given not only to the financial standing but also to the general competency of the bidder for the performance of the work specified in the contract documents.

The bidder may be required before the award of any contract to show to the complete satisfaction of the District that it has the necessary licenses, equipment, facilities, experience, ability, capacity, skill and financial resources to provide the services or goods specified herein in a satisfactory manner. The bidder may also be evaluated on the basis of character, integrity, reputation, judgment, experience and efficiency. The bidder may be required to give a past history and references in order to satisfy the District in regard to the bidder's qualifications. The District may make such investigation as it deems necessary to determine the ability of a bidder to furnish the required goods or services, and the bidder will furnish to the District all such information and data for this purpose as the District may request.

The District reserves the right to reject any bid if the evidence submitted by or investigation of such bidder fails to satisfy the District that such bidder is properly qualified to carry out the obligations of a contract and to deliver the goods or services contemplated herein or; the bid of any bidder who has previously failed to perform properly, or complete on time, contracts of a similar nature. Any material misrepresentation or material falsification of information provided to the District in the bid submission, or at any point in the bid evaluation process is basis for rejection of the bid. In the event that the misrepresentation or falsification is not discovered until after any agreement is awarded, the agreement may be terminated at that time. A determination as to whether a misrepresentation or falsification of the bid submission is material shall be made solely in the exercise of the District's sound discretion.

Failure to meet the requirements of the Request for Bid may be cause for rejection of the bid. The District may reject the bid if it is deemed incomplete, contains irregularities of any kind or is offered conditionally. The District reserves the right to reject the bid of any bidder who previously failed to perform adequately for the District or any other governmental agency. The District expressly reserves the right to reject the bid of any bidder who is in default on the payment of taxes, licenses, or other monies due the District.

The District reserves the right to reject any and all bids without cause; to waive any requirements, both the District's and those proposed by the bidder; to waive any irregularities, informalities, minor defects or variations of a bid from the exact requirements of the specifications, not affecting the price, quality, quantity, delivery or performance time, in any bid or the bid process when it is in the best interest of the District to do so; to sit and act as sole judge of the merit and qualifications of the service offered and; to evaluate in its absolute discretion, the bid of each Contractor, so as to select the Contractor which best meets the requirements of the District, thus insuring that the best interest of the District will be served.

Bids offered conditionally or expressing exceptions or qualifications on technical specifications may be disregarded as non-responsive. A bid that includes terms and conditions that do not conform to the terms and conditions in the Request for Bid documents may be subject to rejection as non-responsive. The District reserves the right to permit the bidder to withdraw non-conforming terms and conditions from its bid response prior to the determination of the District of non-responsiveness based on the submission of non-conforming terms and conditions.

Award of contract, if made, shall be made within ninety (90) days to the responsive, responsible bidder meeting the specifications and requirements of the RFB and having the lowest bid and satisfactory qualifications and performance record. The following criteria will be used in this determination:

A. Unit price or lump sum price in accordance with the requirements of the Request for Bid and the ability to satisfy those requirements.

B. Company's reputation and financial status.

C. Past experience.

The decision as to which bidder is the lowest responsive, responsible and best qualified bidder shall be in the exclusive jurisdiction of the District, and its decision shall be final and binding on all parties.

1.19 PURCHASE ORDER/CONTRACT REQUIREMENT

Purchases of the District are authorized only if a signed purchase order and/or contract is issued in advance of the transaction. Contractors providing services and/or goods without a signed purchase order or contract do so at their own risk. The District will not be liable for payment for any services or goods provided by the Contractor unless a valid purchase order or contract has been issued to the Contractor. See attached "draft" purchase order or contract, as applicable.

1.20 TERMS OF CONTRACT

The complete contract will include the entire contents of the Request for Bid and all pages that make up the RFB solicitation, all addenda, all of successful Bidder's submittals, as approved and accepted by the District, all supplemental agreements, all change order, and any and all written agreements which alter, amend or extend the contract.

1.21 EXECUTION OF CONTRACT

Time is of the essence of this contract. The successful bidder must execute the contract, including but not limited to, signing all necessary documents and submitting evidence of insurance, within ten (10) consecutive calendar days after the notice of award. One copy of the contract will be returned to the Contractor after the District executes the contract. In case of failure of the Contractor to execute and return the contract and all required documents within the time allowed, the District may, at its option, consider that the bidder has abandoned the contract, in which case the District reserves the right to contract with the second lowest bidder.

1.22 ASSIGNMENT OF CONTRACT

No assignment by the Contractor of the contract or any part hereof, or of funds to be received hereunder, will be binding upon the District unless such assignment had prior written approval and consent of the District. In the event the District gives such consent, the terms and conditions of the agreement shall apply to, and bind the party or parties to whom such work is assigned, sublet or transferred.

1.23 DISCLOSURE OF INDEPENDENCE AND RELATIONSHIP

Contractor covenants that it presently has no interest, and shall not acquire any interest, direct or indirect, financial or otherwise, which would conflict in any manner or degree with the performance of the services hereunder. Contractor further covenants that, in the performance of this contract, no subcontractor or person having such an interest shall be employed. Contractor certifies that to the best of his knowledge, no one who has or will have any financial interest under this contract is an officer or employee of District.

Prior to the award of any contract, the potential contractor may be required to certify in writing to the Senior Buyer that no relationship exists between the contractor and any District employee, officer, official or agent that interferes with fair competition or constitutes a conflict of interest with respect to a contract with the District.

1.24 ETHICS IN PUBLIC CONTRACTING

Each bidder, by submitting a bid, certifies that it is not a party to any collusive action or any action that may be in violation of the Sherman Antitrust Act. By submitting a bid, the bidder certifies that its bid was made without fraud; that it has not offered or received any kickbacks or inducements from any other bidder in connection with the offer; and that it has not conferred on any public employee, public member or public official having responsibility for this procurement transaction, any payment, loan, subscription, advance, deposit of money, services, or anything of more than nominal value. The bidder further certifies that no relationship exists between itself and the District or another person or organization that interferes with fair competition or constitutes a conflict of interest with respect to a contract with the District.

1.25 NON-COLLUSION AFFIDAVIT

Bidders are required to submit a Non-Collusion Affidavit with their bids. See attached Affidavit.

1.26 REPORTING OF ANTI-COMPETITIVE PRACTICES

If, and when, for any reason, collusion or other anti-competitive practices are suspected among vendors, a notice of the relevant fact shall be transmitted to the District's Attorney, the Contra Costa County District Attorney and/or State Attorney General.

1.27 ASSIGNMENT OF ANTITRUST AND UNFAIR BUSINESS PRACTICES CLAIMS

Contractor and all subcontractors must conform to the requirements of Section 7103.5(b) of the Public Contract Code. In entering into a public works contract or a subcontract to supply goods, services or materials pursuant to a public works contract, the contractor or subcontractor offers and agrees to assign to the District all rights, title and interest in and to all causes of action it may have under Section 4 of the Clayton Act (15 U.S.C. Sec. 15) or under the Cartwright Act (Chapter 2 commencing with Section 16700 of Part 2 of Division 7 of the Business and Professions Code), arising from purchases of goods, services or materials pursuant to the public works contract or arising from purchase of goods, services or materials pursuant to the public works contract or the subcontract. This assignment is made and becomes effective at the time the District tenders final payment to the contractor, without further acknowledgement by the parties.

1.28 INDEPENDENT CONTRACTOR

Contractor shall be legally considered an independent contractor and neither the Contractor nor its employees shall, under any circumstances, be considered servants or agents of the District; and the District shall be at no time legally responsible for any negligence or other wrongdoing by the Contractor, its servants or agents. The District shall not withhold from the Contract payments to the Contractor any federal or state unemployment taxes, federal or state income taxes, Social Security tax, or any other amounts for benefits to the Contractor. Further, the District shall not provide to the Contractor any insurance coverage or other benefits, including Workers' Compensation, normally provided by the District for its employees.

1.29 CERTIFICATES AND LICENSES

The Successful Bidder shall be licensed under the applicable provisions of the Business and Professions Code of the State of California to do the type of work contemplated in the project and shall possess at the time the contract is awarded, all applicable, valid and current licenses and /or certificates required to complete the work specified herein.

1.30 INSURANCE

The Contractor and his/her insurance company should carefully review the insurance requirements applicable to this job. All requirements must be met before the District will allow work to commence on this contract. When performing work on property in the care, custody or control of the District, Contractor shall, at its expense, procure and maintain insurance with a State of California admitted surety with an A.M. Best's Insurance Rating of A:VII or better on all of its operations under this Contract for the duration of the work and the warranty period. Certificates of Insurance shall be provided within ten (10) consecutive calendar days of award of contract. Failure to furnish the required certificates and endorsements within the time allowed will result in withdrawal of award and forfeiture of the Bidder's Bid Security, if said security is required under the contract.

Commercial General Liability Insurance. Contractor shall carry general liability insurance in any combination of primary, excess or umbrella insurance, covering all operations by or on behalf of Contractor for the limits of liability not less than **$1,000,000 per occurrence and in the aggregate, combined single limit for bodily injury and property damage. If the policy has a general aggregate limit, the aggregate limit shall apply separately to this project.**

Coverage shall be at least as broad as Insurance Services Office Commercial General Liability coverage "occurrence" form CG 0001. Contractor's coverage shall be "occurrence" coverage and not "claims made" coverage. Coverage shall include, or be endorsed to include, coverage for personal injury liability assumed under Contract. The policy shall also include liability arising out of the use and operation of any District-furnished equipment by Contractor, its personnel and others.

The District, its officers, directors and employees shall be named as additional insured on Contractor's policy by a policy provision or endorsement providing coverage at least as broad as Insurance Services Office "Additional Insured - Owners, Lessees or Contractors (Form B) endorsement Number CG 2010 11 85."

Automobile Liability Insurance. Contractor shall carry Automobile Liability Insurance in any combination of primary, excess or umbrella insurance, provided the coverage is at least as broad as the liability coverage of Insurance Services Office Business Automobile Liability, Symbol #1 "any auto" (form number CA 0001), in an amount not less than **$1,000,000 per occurrence combined single limit for bodily injury and property damage**. The policy shall also include liability arising out of the use and operation of District-furnished vehicles by Contractor, its personnel and others.

The District, its officers, directors and employees shall be named as additional insured on Contractor's policy by a policy provision or endorsement providing coverage at least as broad as Insurance Services Office "Additional Insured - Owners, Lessees or Contractors (Form B) endorsement Number CG 2010 11 85."

Additional Insured. The General Liability and Auto Liability policies are to contain or be endorsed to name the District, its officers, appointed and elected officials, agents and employees as Additional Insured as respects the liability arising out of the activities performed in connection with this contract. The coverage shall (a) be primary with respect to any insurance or self-insurance programs maintained by the District; (b) stipulate that any insurance or self-insurance maintained by the District shall not be called upon to contribute with the Contractor's insurance (c) shall apply separately to each insured against whom claim is made or suit is brought, except with respect to the limits of the insurer's liability; and (d) contain Standard Cross-liability provisions. Such additional insured endorsements maintained by the Contractor and its subcontractors shall not be required to provide coverage for District for the active negligence of District. ***Original endorsements, signed by a person authorized to bind coverage on its behalf, shall be furnished to the District by the successful bidder. All amendatory endorsements must reference the policy number to which they refer.***

With regard to additional insured requirements, the following specific language shall be utilized:

"The District is named as additional insured for all liability arising out of the operations by or on behalf the named insured, and this policy protects the additional insured, its officers, agents and employees against liability for bodily injuries, deaths or property damage or destruction arising in any respect directly or indirectly in the performance of the contract.

The inclusion of more than one insured shall not operate to impair the rights of one insured against another insured and the coverages afforded shall apply as though separate policies have been issued to each insured.

The insurance provided herein is primary and no insurance held or owned by the District shall be called upon to contribute to a loss.

This policy does not exclude explosion, collapse, underground excavation hazard or removal of lateral support."

Workers' Compensation and Employers Liability Insurance. Workers' Compensation Insurance shall be provided as required by any applicable law or regulation. Employers Liability Insurance shall be provided in amounts not less than $1,000,000 each accident for bodily injury by accident, $1,000,000 policy limit for bodily injury by disease, and $1,000,000 each employee for bodily injury by disease. **The insurer shall waive all rights of subrogation against the District, its officers, directors, and employees**.

If there is any risk of injury to Contractor's employees under the U.S. Longshoremen's and Harbor Workers' Compensation Act, the Jones Act or under other laws, regulations or statutes applicable to maritime employees, coverage shall be included for such injuries or claims.

Workers' Compensation Self-Insurance. In the event the Contractor is self-insured, he shall furnish a Certificate Of Permission to Self-Insure, signed by the Department of Industrial Relations Administration of Self Insurance, Sacramento, California.

Deductibles and Self-Insured Retention. Any deductibles or self-insured retention must be declared to, and approved by, the District. At the option of the District, either: the insurer shall reduce or eliminate such deductibles or self-insured retention as respects the District, its officials, employees, agents and Vendors; or the Contractor shall procure a bond guaranteeing payment of losses and related investigations, claim administration and defense expenses in an amount specified by the District.

Cancellation Clause. Each insurance policy required by this clause shall be endorsed to state that either party shall not cancel coverage, except after thirty (30) days' prior written notice has been given to the District. The following specific language shall be utilized:

> *"Coverage by this policy shall not be reduced or cancelled without thirty (30) days written notice given to the District by certified mail."*

All Operations Insurance. **The District prefers that the insurance certificates and amendatory endorsements be provided on an "All California Operations" or "All Projects" basis.** ***Note****: If stating "All Operations" on the certificate of insurance, do not include a project, contract or agreement number on the insurance documents.*

In the event Contractor cannot provide insurance on an "All Operations" basis, all insurance correspondence, notices, certificates, and endorsements from the insurance carriers must each separately reference the District project, contract or agreement number as well as the policy number.

Commencement of Work and Failure to Comply with Requirements. Original, signed certificates of insurance and original, separate endorsements, naming the District as additional insured for liability insurance and automobile insurance as well as a waiver of subrogation for Worker's Compensation Insurance are to be received and reviewed by the District before any work is commenced hereunder by Contractor. An individual who is authorized to sign on behalf of the insurer, thus binding the insurer, shall sign the certificates and amendatory endorsements. The District reserves the right to require complete, certified copies of all required insurance policies at any time.

In the event Contractor fails to comply with this section, the District may take such action as the District deems necessary to protect the District's interest. Such action may include but is not limited to termination of the Contract, withholding of payments, or other actions as the District deems appropriate. Furthermore, if at any time during the life of the contract, Contractor fails to maintain in full force any insurance required by the contract documents, the District may acquire the necessary insurance for the Contractor and deduct the cost thereof from the monies due the Contractor.

The successful bidder shall maintain the insurance for the life of the contract. Should Contractor cease to have insurance as required during any time, all work by Contractor pursuant to this agreement shall cease until insurance acceptable to the District is provided.

The insuring provisions, insofar as they may be judged to be against public policy shall be void and unenforceable only to the minimum extent necessary so that the remaining terms of the insuring provisions herein may be within public policy and enforceable.

Original insurance certificates and endorsements are to be faxed, mailed or delivered to:

Chris Newkirk, Senior Buyer
Central Contra Costa Sanitary District
5019 Imhoff Place.
Martinez, CA 94553-4392
Fax: 925-825-1437

1.33 WORKER'S COMPENSATION CERTIFICATION

Bidder shall complete the *Workers' Compensation Certification Form* (Appendix) certifying compliance with the workers' compensation provision of the California Labor Code.

1.34 INDEMNIFICATION

Contractor agrees to indemnify, defend and save harmless the District, its officers, directors, agents and employees, and each of them, from and against any and all suits, actions, legal or administrative proceedings, claims, demands, consequential damages, liabilities, interest, attorney's fees, costs, expenses and losses of whatsoever kind or nature, whether or not well founded in fact or in law and, directly or indirectly caused, occasioned or contributed to in whole or in part, or claimed to be caused, occasioned or contributed to in whole or in part, by reason of any act, omission, fault or negligence whether active or passive of the Contractor or of anyone acting under the Contractor's direction or control, or on the Contractor's behalf, in connection with or incident to the performance of the Contract including delivery and unloading of supplies and equipment, regardless of the passive, concurrent negligence on the part of the District or anyone acting under its direction or control or on its behalf. Without limiting the generality of the foregoing, the same shall include injury or death of any person or persons and damage to any property, regardless of where located, including without limitation the property of the District, the Contractor's employees and all other persons.

It is the intent of the parties that this indemnification requirement is not intended to relieve the District from liability for the active negligence of the District, its officers, appointed and elected officials, agents and employees. This hold harmless clause is in no way an admission of liability on the part of the District or any of its agents or employees.

The successful bidder acknowledges that he has fully informed himself of the contents and meaning of this hold harmless agreement and submits a bid with full knowledge thereof and that the terms are contractual and not a mere recital. These requirements shall also apply to any subcontractor whose hazards are not covered by the Contractor's insurance policies.

1.35 PATENTS AND ROYALTIES

The Contractor, in submitting a bid, covenants to save, defend, keep harmless and indemnify the District and all of its officers, departments, agencies, agents and employees from and against all claims, loss, damage, injury, fines, penalties and cost, including court costs and attorney's fees, charges, liability and exposure, however caused, for or on account of any copyright or patented or unpatented invention, process or article manufactured or used in performance of the contract, including its use by the District. If the contractor uses any design, device or materials covered by patent or copyright, it is mutually agreed and understood without exception that the contract price includes all royalties or costs arising from the use of such design, device or materials in any way in the work.

1.36 AUTHORITY OF THE DISTRICT

Subject to the power and authority of the District as provided by law and in this contract, the District shall in all cases determine the quantity, quality, and acceptability of the work, materials and supplies for which payment is to be made under this contract. The District shall decide the questions that may arise relative to the fulfillment of the contract or the obligations of the contractor hereunder.

1.37 PROSECUTION AND INSPECTION OF WORK

Contractor shall give full attention to the work required under the contract. Contractor is responsible for the completion of all work set out in the contract and will be held strictly to the true intent of the contract regarding the quality and quantity of work and the diligent execution of the contract. All work shall be performed by experienced personnel and shall be commensurate with the highest professional standards.

Project Manager's Responsibility and Authority. All work shall be done under the general supervision of the Project Manager or his designee(s). However, the Project Manager will have no control over nor bear responsibility for the acts or omissions of the Contractor, sub-contractors, their agents or employees, or for

failure of any of these to carry out the work in accordance with the contract documents. The Project Manager has the right to reject work that does not conform to the contract documents. The Project Manager has the authority to make and/or approve changes in the work. The Project Manager shall decide any and all questions that may arise as to the quality and acceptability of work performed, rate of progress of work, and all questions as to the acceptable fulfillment of the Contract on the part of the Contractor.

The Project Manager shall have the authority to suspend the work, wholly or in part, for such period or periods, as he may deem necessary, due to unsuitable weather or other such conditions as are considered unfavorable for the prosecution of work, or failure on the part of the Contractor to carry out the provisions of the Contract. The Contractor shall not suspend operation without the Project Manager's permission.

Contractor's Responsibility and Authority. The Contractor shall bear all responsibility for, and have all control over, the construction means, methods, techniques, sequences, procedures and safety precautions or programs. However, all work is subject to inspection, evaluation, and approval by the District's Project Manager or his/her designated representative. The District may employ all reasonable means to ensure that the work is progressing and being performed in accordance with the contract.

Working Day. The Contractor's activities shall be confined to the hours between 7:00 A.M. and 4:00 P.M., Monday through Friday, excluding holidays. Deviation from these hours will not be permitted without the prior consent of the District, except in emergencies involving immediate hazard to persons or property. The District reserves the right to amend the hours of work to serve the best interest of the District. Changes to the hours of work are at the sole discretion of the District. However, for the intent of defining work hours for compensation purposes, the District's (and Contractor's) regular work hours shall be defined as Monday through Friday, 7:00 a.m. to 5:00 p.m. Work performed outside of these hours, or on weekends or holidays shall be considered emergency work and shall be paid at emergency rates of pay.

Separate Contracts. The District may let other contracts in connection with the work of the Contractor. The Contractor shall cooperate with other contractors with regard to the execution of their work. It shall be the Contractor's responsibility to inspect all work by other contractors affecting his work and report any irregularities that will not permit him to complete his work in a satisfactory manner. His failure to notify the Project Manager of such irregularities shall indicate the work of other contractors has been satisfactorily completed to receive his work. The Contractor shall not be responsible for defects of which he could not have known, which develop in the work of others after the work is complete.

Use of District Personnel. District shall not furnish personnel to assist the Contractor in performance of the contract except as otherwise specified herein. The Contractor understands that any offers of assistance by District Personnel are unauthorized unless specified herein and the Contractor shall not accept such offers.

Care of Existing Structures. The Contractor shall be held responsible for any breakage, loss or damage of the District's equipment or supplies or to property owned by the District or its customers through the negligence of the Contractor or his employees while performing the work specified herein or working on the District's premises. The Contractor shall be responsible for restoring or replacing any equipment, facilities, vegetation, etc., so damaged. The Contractor shall immediately report to the District any damages to the premises resulting from services performed or goods supplied under this contract. Failure or refusal to restore or replace such damaged property will be a breach of this Contract.

Clean-Up And Disposal Of Materials. During performance and upon completion of work on this contract, Contractor will remove all unused equipment and instruments of service, all excess or unsuitable material, trash, rubbish and debris generated by Contractor's work, and legally dispose of same off District property, at Contractor's expense, unless otherwise directed by these specifications. Contractor shall leave entire area in a neat, clean and acceptable condition as approved by the District.

Dust Control. Contractor shall maintain all work areas within contract work limits free from dust, as determined by the District. Only industry-accepted methods of dust control, suitable for the area involved, will be permitted. In all cases dust conditions and dust control procedures must comply with Clean Air laws and the Air Resources

Board. The dust abatement measures shall be continued until the Contractor is relieved of further responsibility by the Project Manager. No separate payment will be made to Contractor for dust abatement measures and all costs thereof shall be included in the various prices named in the bid form for completion of the work.

Changes In Work. The District may, at any time work is in progress, make alterations in the terms of work as shown in the specifications, require the performance of extra work, decrease the quantity of work, or make such other changes as the District may find necessary or desirable. The Contractor shall not claim forfeiture of contract by reasons of such changes by the District.

Extra Work Payment. The labor, materials, and equipment used in the performance of extra work and the compensation therefore shall be subject to the approval of the District

Testing, Inspection and Acceptance. All materials and each part or detail of the work shall be subject at all times to inspection by the Project Manager. The Contractor will be held strictly to the true intent of the specifications in regard to quality of materials and workmanship and the diligent execution of the contract. The Project Manager shall be allowed access at all times to all parts of the work and shall be furnished with such information and assistance by the Contractor as is required to make a complete and detailed inspection. Such inspection may include mill, plant or shop inspection and any materials furnished under these specifications are subject to such inspection.

Properly authorized and accredited inspectors provided by the District shall be considered to be the representatives of the District, limited to the duties and powers entrusted to them. It will be their duty to inspect those portions of work to which they are assigned, either individually or collectively, under instructions of the District and to report any and all deviations from the contract documents or provisions that may come to their notice. Any inspector may be considered to have the right to order the work entrusted to his supervision stopped, if in his opinion such action becomes necessary, until the District is notified and has determined and ordered that the work may proceed in the fulfillment of all contract requirements.

The inspector and his representatives shall at all times have access to the work whenever it is in preparation or progress, and the contractor shall provide facilities for such access for inspection. In the case of any dispute arising between the inspector and the Contractor as to the materials furnished or the manner of performing the work, the inspector shall have the authority to stop the use of materials or suspend the work until the question at issue can be referred to and decided by the Project Manager.

If the specifications, District instructions, laws, ordinances or any public authority require any work to be specially tested, inspected or approved, the Contractor shall give the inspector timely notice of his readiness for inspection, and if the inspection is by another authority than the inspector, of the date fixed for such inspection. Inspections by the inspector shall be promptly made, and where practicable, at the source of supply. If any work should be covered up without approval or consent of the inspector, it must, if required by the inspector, be uncovered for examination and properly restored at contractor's expense.

If the Project Manager or inspector requests it, the Contractor, at any time before acceptance of the work, shall remove or uncover such portions of the finished work as may be directed. After examination, the Contractor shall restore said portions of the work to the standard required by the Specification. Should the work thus exposed or examined prove acceptable, making good of the parts removed shall be paid for as extra work, but should the work so exposed or examined prove unacceptable, the uncovering, removing and replacing shall be at the Contractor's expense.

Rejected Work. All materials and work that do not conform to the contract documents or are in any way unsatisfactory or unsuited to the purpose for which they are intended shall be rejected. Any defective work, whether the result of poor workmanship or quality, or any other cause, shall be removed within ten (10) days after the Project Manager gives written notice, and the work shall be re-executed by the Contractor. The fact that the Project Manager may have previously overlooked such defective work shall not constitute an acceptance of any part of it.

Rights Reserved. Contractor agrees that the District has the right to make all final determinations as to whether the work has been satisfactorily completed. If Contractor fails to comply with the conditions of the contract, or fails to complete the required work or furnish the required materials within the time stipulated, the District reserves the right to purchase in the open market, or to complete the required work, at the expense of the Contractor, including but not limited to, by recourse to provisions of the performance bond if such bond is required under the conditions of this bid.

1.38 CONTRACTOR SAFETY DUTIES

In accordance with generally accepted construction practices and state law, Contractor shall at all times so conduct his work as to insure the protection of persons and property in a manner satisfactory to the District. The Contractor agrees that he shall, for all purposes, take exclusive control of the sites of work and shall maintain the sites and areas adjacent thereto in a reasonable, secure and safe manner.

Prior to commencement of work Contractor and all employees who will perform work under the contract will be required to attend a District Safety Orientation. The orientation takes approximately one hour and all costs to attend this presentation shall be included in the bid.

Only workmen thoroughly familiar with their line of work will be employed on the job. Any overseer, superintendent, laborer or other person employed on the work by the contractor, who shall perform his work in a manner contrary to the specifications or safety directives contained herein, or refuses to carry out the orders of the District, shall be discharged immediately, and such persons shall not again be employed on the work. The following requirements shall apply to all persons employed by the Contractor in the performance of work specified herein:

1. Contractor shall ensure that employees are physically qualified to perform their assigned duties in a safe manner.

2. Contractor shall prohibit employees to work whose ability or alertness is impaired because of drugs, fatigue, illness, intoxication, or other conditions that may predispose them to injury.

3. Contractor shall ensure that all drivers shall be properly licensed and shall operate vehicles and equipment used in the performance of the contract in a safe and prudent manner. Contractor shall provide operating instructions for all equipment and vehicles. Operators of equipment and vehicles shall be able to understand signs, signals, and operating instructions and be capable of operating such equipment. Newly hired equipment operators shall be individually tested by an experienced operator or supervisor to determine if they are capable of safely operating equipment.

Sign-In Required. Each person working under the contract shall be required to check in and check out when arriving at, and leaving the District jobsite.

Hazardous Conditions. Contractor shall be solely and completely responsible for conditions at the jobsite, including the safety of all persons and property during the performance of the work. This requirement shall apply continuously and not be limited to normal working hours. Contractor is hereby informed that work on this Project could be hazardous and physically dangerous to workers. Contractor shall not allow a new employee or subcontractor to begin work without a proper safety orientation. Contractor shall carefully instruct all personnel working in potentially hazardous work areas as to potential dangers, including but not limited to, confined spaces, potentially explosive atmospheres, handling of chemicals and possible exposure to pathogens. The conveyance and treatment of raw sewage and its by-products can introduce pathogenic organisms which may cause diseases such as Salmonellosis, Typhoid Fever, Paratyphoid Fever, Bacillary Dysentery, Cholera, Infectious Hepatitis, Polio, Amoebic Dysentery, Giardiasis, Cryptosporidiosis and others.

Contractor is advised that the work may take longer and may require special equipment in order to properly conform to safety requirements. The Contractor shall provide personal hygiene, safety and personal protective supplies, equipment and training as are necessary to prevent injury to personnel and damage to property.

Compliance with Laws. Contractor shall keep itself fully informed of, and shall observe and comply with, all laws, ordinances and regulations which in any manner affect those engaged or employed on any work, or the materials and equipment used in any work, or in any way affect the performance of any work, and of all orders and decrees of agencies having any jurisdiction or authority over work performed under the contract. Attention is specifically drawn to the requirements of FED-OSHA and CAL-OSHA, as well as the District's Safety Requirements.

Contractor shall agree that all material delivered and services rendered under this RFB complies with the Williams-Steiger Occupational Safety and Health Act of 1970 (and all applicable amendments thereof) and the State of California Industrial Safety Act (and all applicable amendments thereof). Contractor further certifies that all items furnished under this RFB will conform and comply with the indemnification and hold harmless clause for all damages assessed against the District as a result of Contractor's failure to comply with the aforementioned Acts and the standards issued thereunder and for the failure of the items furnished under this RFB to so comply.

If any discrepancy or inconsistency should be discovered between the contract and any such law, ordinance, regulation, order or decree, Contractor shall immediately notify the District in writing. Contractor shall be responsible for the compliance by subcontractors of all tiers, with these provisions. Contractor shall hold the District harmless from any liability resulting from failure of such compliance. In case of conflict between federal, state and local laws, rules, regulations, codes and ordinances, the most stringent shall apply.

Contractor shall comply with Sections 12101 through 12901 of Title 22, California Administrative Code. Contractor shall warn all persons at the work site of their exposure to chemicals known to the state to cause cancer or birth defects or other reproductive harm.

In case of conflicts between federal, state, and local safety and health requirements, the most stringent shall apply. Failure to comply with the requirements of this section and related sections may result in suspension of work.

District Safety Requirements. In addition to complying with all other safety regulations, Contractor shall abide by the requirements contained in the *District Safety Requirements for Treatment Plant and Pumping Station Manual*.

Personnel Protective Equipment. Contractor shall provide safety equipment such as hardhat, face shield, and self- contained breathing apparatus (as necessary), for each employee performing work under the contract. All personnel protective equipment must meet requirements of NIOSH and MSHA, where applicable, as well as ANSI.

Confined Space Entry. Contractor shall use special equipment as necessary to permit complete access to areas of work. In the event confined space entry is required, Contractor shall follow all appropriate local, state, and federal laws pertaining to confined space entry.

Noise Levels. A noise level limit of 86 dbA at a distance of fifty feet (50') shall apply to all construction equipment on or related to the job whether owned by the Contractor or not. The use of excessively loud warning signals shall be avoided except in those cases required for the protection of personnel.

Safety and First Aid Requirements. Successful Contractor shall comply with the provisions of California Code of Regulations Section 1502 & 1512, et. seq. regarding safety and first aid kits on site.

Stop Work Order for Safety Violations. The District may order the Contractor to stop work whenever any safety violation is observed and/or evidenced. The Contractor shall comply with the stop work order and shall not resume the work until the safety violation is corrected to the satisfaction of the District. Contractor shall not be entitled to any compensation for time during the period of the stop work order. The District also reserves the

right to modify or suspend any work assignment due to adverse weather conditions or any other reasons at no cost to the District.

District Review of Contractor's Safety Practices. The services of the District in conducting review and inspection of Contractor's performance is not intended to include review of the adequacy of Contractor's work methods, equipment, or safety measures, in, on, or near the construction site.

1.39 TERMINATION FOR DEFAULT AND CAUSE

In the event that the Contractor fails to perform under the terms of the contract, the District may cancel the contract with ten (10) days written notice to the Contractor. Termination for cause shall be at the discretion of the District and such cause shall be, but not limited to the following circumstances:

A. If the Contractor shall fail to provide services or perform satisfactorily the work required by the terms and conditions of the contract, or materially breaches any of its obligations under this agreement the District may terminate the contract, in whole or in part.

B. Any assignment, subletting or transfer of the interest of the Contractor, either in whole or in part, without the written consent of the District shall be cause for the District to immediately terminate the agreement for default.

After receipt of a notice of termination, except as otherwise directed, the Contractor shall stop work on the date of receipt of the notice of termination or other date specified in the notice; place no further orders for services, except as necessary for completion of such portion of the services not terminated; and settle all outstanding liabilities and claims.

In case of default by Contractor, the District may procure the articles or services from other sources and hold the Contractor responsible for any resulting additional purchase and administrative costs and may deduct from monies due, or that may thereafter become due to the Contractor, the difference between the contract price and the actual cost thereof to the District. Prices paid by the District shall be considered the prevailing market price at the time such costs are incurred. This remedy shall be in addition to any other remedies that the District may have.

1.40 TERMINATION FOR CONVENIENCE

The performance of work under the contract may be terminated by the District in whole or in part whenever the District determines the termination is in the District's best interest. Any such termination shall be effected by the District by the delivery of written notice of termination at least thirty (30) days before the date of termination, specifying the extent to which performance of the work under the Contract is terminated and the date upon which such termination becomes effective.

After receipt of a notice of termination, except as otherwise directed, the Contractor shall stop work on the date of receipt of the notice of termination or other date specified in the notice; place no further orders or subcontracts for materials, services or facilities except as necessary for completion of such portion of the work not terminated; terminate all vendors and subcontracts and settle all outstanding liabilities and claims.

1.41 TERMINATION OF CONTRACT BY CONTRACTOR

Contractor may terminate the contract upon thirty (30) days written notice to the District whenever:

1. The entire work has been suspended for ninety (90) consecutive days through no fault or negligence of Contractor and notice to resume work or to terminate the contract has not been received from the District within this time period, or;

2. The District should fail to pay Contractor any undisputed billings in accordance with the terms of the contract and within the time limits prescribed.

In the event of such termination, Contractor shall have no claims against the District except for work performed as of the date of termination.

1.42 NON-APPROPRIATION

All funds for payment by the District under this contract are subject to the availability of an annual appropriation for this purpose by the Board of Directors. In the event of non-appropriation of funds by the Board of Directors for the services or goods provided under contract, the District will terminate the contract, without termination charge or other liability, on the last day of the then-current fiscal year or when the appropriation made for the then-current year for the services covered by this contract is spent, whichever event occurs first. If at any time funds are not appropriated for the continuance of the contract, cancellation shall be accepted by Contractor on thirty (30) days' prior written notice, but failure to give such notice shall be of no effect and the District shall not be obligated under this contract beyond the date of termination.

1.43 INVOICES

Unless otherwise specified, invoices shall be sent to the address set forth herein below. Invoices shall include the Contract number and the District representative's name, the hourly rate, as applicable with number of hours (or other pricing) and invoice total amount.

Central Contra Costa Sanitary District
Attention: Accounts Payable
5019 Imhoff Place
Martinez, CA 94553-4392

1.44 PAYMENT

Payment will be made within thirty (30) days of acceptance of the goods or services or after the receipt of a correct invoice, whichever event occurs later. Any payments due contractor shall will be withheld pending receipt of any outstanding reports required by the contract documents.

The full ten per cent (10%) retention may be deducted from all payments, unless the Contractor has elected to deposit securities with the District in accordance with the provisions of California Public Contracts Code, Section 10263. The final retention will be authorized for payment thirty-five (35) days after final acceptance of the project is issued by the District, provided no stop notices have been filed.

District Right to Withhold Certain Amounts. In addition to the payment to be retained by the District under the provisions of the contract documents, the District may withhold a sufficient amount of any payment otherwise due to the contractor to cover (a) payments that may be past due and payable for just claims for labor or materials furnished in and about the performance of the work under this contract or (b) for defective work not remedied. The District shall disburse, and shall have the right to act as agent for the contractor in disbursing such funds as have been withheld pursuant to this subsection, to the party or parties who are entitled to payment therefrom. The District will render to the contractor a proper accounting of all such funds disbursed on behalf of the contractor.

Substitution of Securities for Ten (10%) Retention. The contractor may elect to receive one hundred percent (100%) of the payment due under the contract without retention of any portion of the payment by the District by depositing securities of an equivalent value with the District in accordance with the provisions of the California Public Contracts Code Section 10263 and the California Government Code Section 4590.

Deposit of securities with an escrow agent shall be subject to written agreement in accordance with the provisions of Section 4590 of the California Government Code. Securities eligible for investment under this Section shall be limited to those listed in Section 16430 of the California Government Code, or any other security

mutually agreed upon by the Contractor and the District. Any escrow agreement entered into pursuant to Section 4590 shall contain, as a minimum, the following provisions:

a. The amount of securities to be deposited.

b. The terms and conditions of conversion to cash in case of default by the contractor.

c. The termination of the escrow upon final acceptance of the work by the District.

1.45 LIENS

If at any time any notices of lien are filed for labor performed or materials or equipment manufactured, furnished, or delivered to or for the work, Contractor shall at its own cost and expense, promptly discharge, remove, or otherwise dispose of the same, and until such discharge, removal, or disposition, the District shall have the right to retain from any monies payable to Contractor, an amount which, in the District's sole judgment, it deems necessary to satisfy such liens and pay the costs and expenses, including attorneys' fees, of defending any actions brought to enforce the same, or incurred in connection therewith or by reason thereof.

1.46 RIGHT TO REQUIRE PERFORMANCE

The failure of the District at any time to require performance by the Contractor of any provisions hereof shall in no way affect the right of the District thereafter to enforce the same. Nor shall waiver by the District of any breach of any provision hereof be taken or held to be waiver of any succeeding breach of such provision or as a waiver of any provision itself.

1.47 LABOR AND PREVAILING WAGE REQUIREMENTS

In accordance with the California Code of Regulations (CCR), Title 8, any contract entered into pursuant to this notice shall incorporate all applicable provisions of the State of California Labor Code, including those pertaining to Apprenticeship Employment Standards. Any contractor to whom a contract is awarded, and any subcontractor under him, shall pay all workers employed on the project not less than the prevailing wage rates of per diem wages in the locality in which the work is to be performed for each craft, classification or type of worker needed to execute the contract, including employer payments for health and welfare, pension, vacation apprenticeship and similar purposes, as these wage rates are determined by the Director of the Department of Industrial Relations. The schedule of per diem wages is based upon a working day of eight hours. The rate for holiday and overtime work shall be at least time and one half.

The general prevailing rate of wages can be obtained from the California Department of Industrial Relations via the Internet @ www.dir.ca.gov or by phone at 415-703-4780. Said wage rates are also on file at the Board Room & Lobby and will be made available to any person upon request. Bidders are responsible for insuring that the proper rates are paid. No adjustments to the contract will be made due to bidders failure to obtain the proper wage rates. The wage rates will be incorporated by reference a requirement in any resultant contract.

Contractor acknowledges that he is familiar, or will become familiar, with the applicable provisions of the State of California Labor Code Sections, specifically, but not limited to the following Sections:

1. Labor Code Section 1735, in accordance with CCR, Title 8 Section 16101 – Discrimination in Employment
2. Labor Code Sections 1771 and 1774, in accordance with CCR, Title 8 Section 16000 – Payment of Prevailing Wages
3. Labor Code Section 1773.8 – Travel and Subsistence
4. Labor Code Section 1775 – Penalty for Failure to Pay Prevailing Wages
5. Labor Code Section 1776 – Certified Payroll Records

6. Labor Code Sections 1777.5 and 1776 – Apprenticeship Employment Standards

7. Labor Code Section 1777.7 – Penalty for Failure to Comply with Apprenticeship Employment Standards

8. Labor Code Section 1778 and 1779 – Worker's Wages and Acceptance of Fees

9. Labor Code Section 1810 and 1813 – Legal Day's Work

10. Labor Code Section 1812 – Record of Work Performed

11. Labor Code Section 1813 – Penalty for Failure to Pay Overtime

12. Labor Code Section 1815, in accordance with CCR, Title 8 Section 16200 – Overtime Rates of Pay

13. Labor Code Sections 1860 and 1861 in accordance with Section 3700 – Worker's Compensation Insurance

1.48 EQUAL EMPLOYMENT OPPORTUNITY

Attention of the bidder is particularly called to the requirement for ensuring that employees, and applicants for employment, are not discriminated against because of their ancestry, race, religion, color, gender, age, disability, political affiliation, national origin or ancestry, except when such a condition is a bona fide occupational qualification reasonably necessary for the normal operations of the Contractor. It is understood and agreed that the contractor shall comply with all requirements, when applicable, of the California Fair Employment Practices Commission and provisions, when applicable, of all Federal, State of California, County of Contra Costa and the District's laws and ordinances, in performance of fulfilling this agreement. The aforesaid provisions shall include, but not be limited to employment, upgrading, demotion or transfer, recruitment or recruitment advertising, layoff or termination, rates of pay or other forms of compensation and selection for training, including apprenticeship.

The Contractor agrees to post in conspicuous places, visible to the employees and applicants for employment, notices setting forth the provisions of this nondiscrimination clause. Contractor, in all solicitations or advertisements for employees, placed by, or on behalf of Contractor, shall state that Contractor is an Equal Opportunity Employer.

1.49 AMERICANS WITH DISABILITIES ACT

The Americans with Disabilities Act (ADA) of 1990 provides comprehensive civil rights to individuals with disabilities in the area of employment, public accommodations, state and local government services and telecommunications. Contractor assures the District that it complies with the ADA, which prohibits discrimination on the basis of disability, as well as all applicable regulations and guidelines issued pursuant to the ADA. (42 U.S.C. 12101 et seq.) and its implementing regulations.

1.50 IMMIGRATION REFORM AND CONTROL ACT OF 1986

Contractor certifies that it does not and will not during the performance of the contract employ illegal alien workers or otherwise violate the provisions of the Federal Immigration Reform and Control Act of 1986 (IRCA) and shall comply with existing Labor Codes regarding employ of aliens except under extraordinary emergencies (Section 1851.5, 1850 to 1854). Further, bidder shall indemnify, hold harmless and defend the District against any and all actions, proceedings, penalties or claims arising out of the bidder's failure to comply strictly with the IRCA.

1.51 LOBBYING EFFORTS

Any lobbying efforts by bidders as a result of this Request for Bid, or its award, are prohibited.

1.52 NEWS RELEASES

News releases, publications or advertisements pertaining to this Request for Bid or to the project to which the Request for Bid relates shall not be made without prior approval of the District, and only in coordination with the District.

1.53 RECORDS AND AUDIT

Contractor shall maintain complete and accurate records with respect to the services rendered and the costs incurred under this agreement, including all ledgers, books of account, invoices, vouchers, canceled checks, and other records or documents evidencing or relating to charges for services or expenditures and disbursements charged to the District. All such records shall be prepared in accordance with Generally Accepted Accounting Practices (GAAP), shall be clearly identified and shall be kept readily accessible. Upon oral or written request of the District, Contractor shall make such records available to the District's auditor and his agents and representative, for the purpose of auditing and/or copying such records, at any time during regular business hours, for a period of three (3) years, or for any longer period required by law, from the date of final payment under this agreement.

Under California Government Code Section 8546.7, if the amount of public funds expended under the contract is anticipated to exceed Ten Thousand Dollars ($10,000.00), the contract shall be subject to the examination and audit of the State Auditor, at the request of District or as part of any audit of the District, for a period of three (3) years after final payment under the contract.

1.54 SEVERABILITY

If any provisions of this Contract shall be held to be invalid, illegal or unenforceable, the validity, legality and enforceability of the remaining provisions shall not in any way be affected or impaired thereby.

1.55 SURVIVAL

Notwithstanding the District's acceptance of the work and payment therefor, Contractor shall remain obligated under all clauses of this Contract, which expressly or by their nature extend beyond and survive such acceptance and payment or termination.

1.56 VENUE

Any contract resulting from this solicitation shall be governed by, and construed in accordance with, the laws of the State of California. Venue for any litigation arising out of the contract will be vested in Contra Costa County, California.

1.57 INCURRING COSTS

The District is not liable for any cost incurred by bidders in responding to this Request for Bid. Such expenses shall be borne exclusively by the bidder.

1.58 CANCELLATION OF SOLICITATION

The District may cancel this solicitation at any time.

SECTION TWO
SCOPE OF WORK
RFB NO. 08-09-03 TOSHIBA 15 KVA UPS BACKUP SYSTEM

1. GENERAL REQUIREMENTS

The intent of these specifications is to describe a new **Toshiba 15 KVA UPS Backup System** for the District's Martinez, CA Treatment Plant facility. **The District intends to purchase one (1) unit.**

The specifications provided herein are minimum requirements. To be deemed acceptable and responsive to the specifications, **equipment offered must meet or exceed the requirements stated herein**. The equipment shall be of the latest improved model in current production, as offered to commercial trade and shall be of quality workmanship and material. Equipment offered shall have been in continuous production for a minimum of two (2) years. Equipment shall be new and unused; used, shopworn, demonstrator, prototype or discontinued models are not acceptable. Notwithstanding the foregoing, the District reserves the right to waive minor variations if, in the opinion of the Purchasing Division, the equipment meets the general intent of these specifications.

The specifications are written with the intent to meet all applicable Federal and State codes, rules, regulations and laws. However, the final certification to comply shall rest with the supplier and not the District. Should any of the specifications as written not comply with applicable Federal and State codes, rules, regulations and laws, supplier is required to re-configure and revise the specifications and notify the District of same prior to bid opening.

The equipment shall be supplied with all appurtenant equipment and accessories indicated as "Standard Equipment" in the **manufacturer's latest published literature and detailed specifications (including photos and illustrations of the proposed equipment), which must accompany this bid, even though said standard equipment may not be itemized in the specifications**. However, do not assume that your standard equipment meets all detailed specifications. Bidders are advised to read the specifications carefully as there may be special requirements not commonly offered by the equipment manufacturer. Any equipment called for in these specifications which is necessary to meet the stated minimum requirements, and which is not listed by the manufacturer, as standard shall be furnished. Additionally, optional equipment shall be installed as necessary to meet the District's requirements stated herein, even though said equipment may not be specified herein. Equipment that does not meet specifications in every aspect will not be accepted by the District.

This data shall include but is not limited to one line diagrams, overcurrent device rating, short circuit ratings, and available fault current on output of the UPS system so that the District can evaluate and ascertain that the manufacturers equipment meets the Districts minimum requirements.

Equipment and all accessories shall meet Federal and State of California safety, health, noise and emissions regulations and standards and all other applicable Federal and State requirements, codes and statutes in effect at the time of manufacture of the equipment.

2. ORDER ACKNOWLEDGMENT

After award, the successful bidder shall acknowledge receipt of any purchase order issued by the District, and upon availability, **notify the Purchasing Division of the manufacturer's order acceptance date, factory assigned order number and production date**.

3. DELIVERY

All prices shall be **F.O.B. Destination; Central Contra Costa Sanitary District, 5019 Imhoff Place, Martinez, CA.** Freight, delivery costs, and incidental charges shall be included in the price quoted. Deliveries are to be made during the normal working hours of the District. **Supplier shall be required to contact the District Representative, Mark Cavallero, Plant Operations Maintenance Planner, at 925-382-2580 prior to delivery. If equipment is delivered without prior approval of the District's representative, the District reserves the right to refuse delivery.** Delivery must be made within the time (calendar days after receipt of order) stated by Bidder on the bid form. Failure to deliver within the time stated may subject the order to cancellation. The title and risk of loss of the goods shall not pass to the District until the District receives, takes possession, and accepts the goods at the point of delivery.

4. MANUALS AND DOCUMENTATION

Supplier shall provide warranty documentation, operation, shop repair, maintenance, trouble-shooting and parts manuals, including wiring, air and hydraulic as-built diagrams/schematics, electrical schematics and lubrication instructions when the equipment is delivered. The parts list shall be detailed and provide part number, description and component location. The service manuals shall provide the manufacturer's recommended service/preventive maintenance intervals, as well as recommended spare parts. Five percent (5%) retention will be withheld from the payment until the manuals have been delivered to the District.

This data shall include but is not limited to one line diagrams, overcurrent device rating, short circuit ratings, and available fault current on output of the UPS system so that the District can evaluate and ascertain that the manufacturer's equipment meets the Districts minimum requirements.

5. EQUIPMENT WARRANTY

The equipment shall be warranted by the manufacturer and/or dealer against defects in material and workmanship with a comprehensive three-year on-site warranty. The warranty shall cover parts, labor, travel and freight for the 15 KVA UPS. The battery system shall have a full two-year warranty with 8 year's prorata total of 10-year battery warranty. Warranty time periods must commence when the equipment is actually put into service as evidenced by District's records, rather than commencing upon delivery. **A copy of all warranty policies must accompany the equipment at the time of delivery.**

6. SERVICE

During the warranty period, manufacturer or the manufacturer's representative will have three (3) working days after notification of a failure to take action towards inspecting the equipment and repairing the problem. Manufacturer or its representative agrees to perform

said warranty work at no cost to the District, including transportation to and from the repair facility as necessary. In the event the District is required to deliver a unit for warranty work or pick up a unit after warranty work has been completed, supplier shall reimburse the District at a rate of $100 per hour for the pickup and delivery time involved, in addition to any transportation costs such as trailer rental.

The manufacturer and/or dealer must have a full-service facility with factory-trained technicians and an adequate supply of service parts available within a twenty-four hour (24) response time. After completion of warranty work, supplier shall provide the District a "no charge" copy of the work order(s) describing the type of repair and the parts replaced.

- ***Bidder's shall list the nearest factory-authorized service facility for servicing the complete unit or portions thereof and the number of factory-trained service technicians employed in the Bid Form – Service Facilities (Page 4).***

7. TRAINING

A qualified service representative shall be in attendance during the start-up operation of the equipment to make adjustments and provide instruction as to the proper operation of the equipment. A prepared video training tape shall be provided to supplement initial and future training. Full operational and maintenance training for employees shall be provided by the manufacturer or supplier within one (1) week of delivery or as otherwise directed by the District. The duration of the training shall be determined by the District Representative.

- ***Bidder's shall provide pricing for training on the Bid Form – Pricing (Page 1).***

8. MINIMUM SPECIFICATIONS

A. SCOPE

1. System – General:

   This specification describes a continuous duty, three-phase, on-line, solid-state uninterruptible power supply system, hereafter referred to as the Toshiba 15 KVA UPS Backup System and shall have the following features:

   - Be of the "Industrial" type
   - Dual input
   - Use double conversion technology
   - Internal maintenance bypass
   - Wall mounted, three-breaker external maintenance bypass switch with kirk key interlocks, 18 KAIC rated circuit breakers, and be of the make before break type. Electrical KK interlock
   - Battery backup shall be 81 minutes at full load
   - Provided with input over current protection of the converter.
   - Provided with output over current protection of the inverter.
   - Separate battery cabinet
   - The UPS manufacturer shall provide all over current protection and disconnecting means for the UPS, batteries, & bypass circuit as indicated on the one line diagram. Protective device rating shall be as

recommended by the UPS manufacturer. The interrupting rating shall not be less than the available fault current on which it is installed. Coordination of over current protective devices shall be taken into account in determining their rating.

- Input isolation transformer
- Bypass isolation transformer
- Ethernet network card
- All equipment shall be rated for seismic anchoring, UBC Zone 4

2. Layout & Access:

   - The UPS and battery cabinet internal components requiring maintenance and all field connections shall be accessible from the front of the cabinets.

3. Short Circuit Current:

   - The short circuit current available from the District's 480-volt source to the UPS is 35 KA. The UPS system must be rated for this current. UPS output short circuit current shall be less than 10 KA.

4. Detailed Line Diagram:

   - See attached - this diagram indicates the preferred UPS system configuration. Alternate configurations may be considered.

B. SYSTEM DESCRIPTION

1. Applicable Standards:

   The 15 KVA UPS shall be designed in accordance with and be compliant with the following sections of the current revisions of the following standards:

   - ANSI C62.41 (IEEE 587) — Standard for Surge Withstandability
   - UL 1778 – Standards for uninterruptible power supply equipment
   - National Electrical Code (NFPA-70)
   - NEMA PE-1
   - OSHA
   - ASME
   - ISO 9001, 14001

2. Components:

   The 15 KVA UPS shall consist of the following components:

   - Converter
   - Chopper / Charger
   - Pulse-Width Modulated (PWM) Inverter
   - Static Switch Bypass
   - Microprocessor Controlled Logic and Control Panel
   - Input Circuit Breaker

- Battery System
- Input / Output EMI / RFI Filters

3. System Operation:

The 15 KVA UPS shall operate as an on-line, fully automatic system in the following modes:

NORMAL - Incoming AC power is boosted using a chopper circuit, and converted into DC power. The DC power is then used to charge the battery bank while at the same time providing clean, DC power to the inverter circuitry. The inverter converts DC power to regulated AC power which feeds the load.

EMERGENCY - Upon failure of commercial AC power, the 15 KVA UPS shall derive power from the battery bank and continue feeding the load with clean, regulated AC power. There is no interruption to the critical load upon failure or restoration of commercial AC power.

- o A dry contact shall be provided to indicate the UPS is operating on batteries.

RECHARGE - Upon restoration of the commercial AC source, the rectifier/chopper powers the inverter while simultaneously recharging the battery bank. The 15 KVA UPS shall have the following recharge process:

- a constant level of current is used to recharge the batteries (the process shall utilize a current-limit function to prevent overcharging batteries, thus extending the life of the batteries)

- as the batteries reach the normal charge level, a constant-voltage control shall begin which causes the battery recharge current to gradually decrease

- Under normal operation, the 15 KVA UPS battery bank “floats” at the 2.25-2.27 volts per cell DC level to stay fully charged and ready for the next discharge.

BYPASS MODE - Upon detection of an internal fault or output overload, the 15 KVA UPS shall automatically switch from inverter power to an internal bypass via the static switch. Transfer shall be within 4 milliseconds, causing no interruption to the critical load. While in bypass, the 15 KVA UPS shall protect against spikes and common/normal mode noise by utilizing a dual-winding output isolation transformer. “Return from Bypass mode” shall be an automatic function, without interruption to the critical load. Transfer to Bypass may also be performed as a manual operation via the 15 KVA UPS front panel.

POWER CONDITIONING MODE - Should the batteries be removed from the KVA UPS, the 15 KVA UPS shall continue to function and still provide protection against spikes, common/normal mode noise, load steps and

frequency shifts (without battery back-up capability).

C. SYSTEM PARAMETERS

1. 15 KVA UPS Input

• Input Voltage	480VAC
• Input Voltage Requirement	3 Phase, 3 Wire + Ground
• Voltage Variation	+10% to -30%
• Rated Frequency	60 Hz
• Frequency Range	45 - 65 Hz
• Power Factor	> 0.98 lagging
• Input Capacity	110% of 15 KVA UPS Output Capacity
• Walk-In Function	From 20% to 100% over 5 seconds
• Input Current Limit	125% of nominal capacity
• Inrush Current	<600% under synchronous condition
• Input Current THD	<3% Total Harmonic Distortion (THD)
• Surge Withstandability	Meets ANSI C62.41 (IEEE 587)
• Input Phase Rotation (Protection/Detection)	Standard front-panel alarm panel shall notify user that unit has been supplied with incorrect phase rotation on input to allow for correct installation. The 15 KVA UPS shall be fully protected to prevent damage from this event.

2. 15 KVA UPS Output

• Rated Voltage	208/12OVAC
• Output Voltage Requirements	3 Phase, 4 Wire + Ground
• Output Capacity	15 kVA
• Rated Load Power Factor	0.8 lagging
• Voltage Regulation	+/- 2% nominal (balanced load) +/- 3% nominal (unbalanced load)
• Voltage Adjust. Range	+/- 5% manually (by front panel user interface)
Phase Displacement	+/- 2 deg. (balanced load) +/- 4 deg. (100% unbalanced load)
• Rated Frequency	60 Hz (jumper selectable)
• Frequency Regulation	+/- 0.01% free running
• Frequency Synch. Range	+/- 0.5/1.0/1.5 Hz (+/- 1.0 Hz Standard) User selectable
• Frequency Slew Rate	1.0 Hz/second to 3.0 Hz/second
• Voltage Transients	+/- 5% (100% step load change)

	+/- 3% (loss or return of input power) +/- 8% (bypass to inverter)
• Transient Voltage Recovery	50ms maximum to within 2% of nominal
• Overload Cap. (on inverter)	125% for 90 sec., 150% for 30 sec.
• Overload Cap. (on bypass)	1000% for 10 ms, 125% for 10 mm.
• Crest Factor	3.0
• Harmonic Voltage Distortion	1.5% THD maximum, 1% maximum for any single harmonic (linear load)
• Inrush Current Protection	Automatic transfer to bypass, then auto- return to inverter (retransfer may be inhibited by jumper)
• Output Over-current	Hall-Effect Current Transformer and Fusing

3. Batteries

- Shall be housed in a separate cabinet, a freestanding, NEMA 1 enclosure, color to match UPS cabinet, with 4 casters and leveling feet. Rack mounted batteries are not acceptable.
- Battery Type: Sealed, Valve Regulated Lead Acid cells, flame retardant
- Protection Time: 81 minutes @ 15 kVA
- Ripple Voltage: 2% RMS maximum
- DC Voltage Range:

15 KVA UPS Capacity		• 15 kVA
Nominal Voltage		• 288 VDC
Alarms Voltage	(V low)	• 252 VDC
Shutdown Voltage	(V min)	• 216 VDC

4. Environmental

• Efficiency:	86% (AC/AC); 89% (DC/AC)
• Operating Temperature:	15 KVA UPS: 32 to 104° F (0 to 40° C) Battery: 68 to 85° F (20 to 29.4° C)
• Storage Temperature:	15 KVA UPS: -4 to 140° F (-20 to 60° C) Battery: prolonged storage above 104° F (40° C) causes rapid battery degradation
• Relative Humidity:	30-90% (non-condensing)
• Audible Noise:	60 dB ('A' scale @ 1 meter)
• Altitude:	<6,000-ft. maximum (<2,000 m)

D. FUNCTIONAL DESCRIPTION

1. Converter / Charger / DC Chopper

DESCRIPTION - The converter/charger shall consist of a solid-state three phase rectifier, DC to DC converter (chopper), output filter, and transient suppresser network to regulate and maintain DC power to the inverter.

TRANSIENT SUPPRESSER - The incoming AC utility shall first be connected to a molded case circuit breaker as a means of disconnecting power to the 15 KVA UPS. Power shall flow through a surge absorber to prevent large transients from passing through to the load or damaging the batteries. Power shall then flow through a line filter to prevent sags or surges from passing to the load.

CONVERTER/CHARGER - The converter shall serve to change incoming AC power to DC, which shall be supplied to the DC chopper. From this point, DC power is used to recharge the battery bank while simultaneously providing power to the inverter.

i. Input Frequency Range: 45-65 Hz, continuous, without battery operation
ii. Capacity: Battery recharge shall be to within 90% of nominal from a fully discharged state in 10 times the discharge time.

DC CHOPPER - The chopper circuit shall consist of inductors, capacitors, diodes and IGBT's (Insulated Gate Bipolar Transistors). The chopper shall have the function of providing start-up protection (by checking phase rotation of incoming utility power), boosting the DC to the inverter (during low AC input voltage conditions), providing power factor enhancement, and reducing reflected harmonics to incoming utility power.

2. Pulse Width Modulated (PWM) Inverter

DESCRIPTION - The PWM (Pulse Width Modulated) inverter shall incorporate an advanced IGBT design, an output isolation transformer, and output overcurrent protection for clean, regulated output power to the critical load.

INVERTER - The inverter network shall consist of a high speed IGBT switching network designed to supply non-linear loads with a clean and steady voltage waveform. The inverter switching speed shall be fast enough to limit audible noise to 60 dBA at 3 feet (measured on 'A' scale).

OVERCURRENT PROTECTION - The output circuitry shall be equipped with a Hall Effect Current Transformer to detect and protect the inverter from excessively high currents.

3. Static Bypass Switch

TRANSFER - The static bypass switch shall consist of thyristor switches in conjunction with an output contactor to permit manual switching from bypass to 15 KVA UPS and 15 KVA UPS to bypass without power interruption. The 15 KVA UPS shall instantaneously

transfer to bypass should a component fail during normal operation (provided the 15 KVA UPS and bypass are in synchronization). Auto-retransfer to 15 KVA UPS after an overload condition shall be completed within one second after the bus has dropped to 100% of nominal. The switch shall have the same overload capacity as the inverter.

REMOTE RUN/STOP - A set of normally open dry contacts shall be provided to remotely transfer the 15 KVA UPS on-line and off-line. When the 15 KVA UPS is in this mode of operation, the 15 KVA UPS front control panel shall be disabled to provide a secured configuration.

4. Microprocessor Control System

DESCRIPTION - The 15 KVA UPS system shall be provided with a highly reliable microprocessor internal control system to perform start-up, transfers, monitoring, and battery recharging. The microprocessor shall provide important information to the user (via a liquid crystal display) with such as system status, fault messages and input and output parameters.

LED INDICATORS - The following LED indicators shall be provided on the 15 KVA UPS front panel displays, which mimic power flow through the 15 KVA UPS:

- AC INPUT (Green Lamp) - Lights when normal AC input power is being supplied to the unit.
- INVERTER (Green Lamp) - Lights when the 15 KVA UPS unit's inverter is normal.
- BATTERY (Green Lamp) - Lights when the batteries are discharging: flickers when the battery voltage is below minimum.
- BYPASS (Green Lamp) - Lights when in circuit-bypass mode.
- FAULT (Red Lamp) - Lights when a fault has been detected. See "System Diagnostics" for specific fault.

SYSTEM METERING - The 15 KVA UPS shall be provided with a single readout display which displays, upon request, the following information:

- AC INPUT VOLTAGE (Line to Line)
- AC OUTPUT VOLTAGE (Line to Line, Line to Neutral)
- AC OUTPUT CURRENT
- BATTERY VOLTAGE
- BATTERY CHARGING CURRENT
- INPUT FREQUENCY
- OUTPUT FREQUENCY
- INPUT/ OUTPUT kW
- POWER FACTOR

SYSTEM DIAGNOSTICS - The following diagnostic information shall be provided to troubleshoot the 15 KVA UPS should a fault occur:

- 15 KVA UPS Ok
- Memory Error
- Wrong Phase Rotation of AC Input
- Internal AC Circuit Fault
- Internal DC Circuit Fault
- Heatsink Overheat
- DC unbalanced
- DC Circuit Over/Under voltage
- DC Circuit Overcurrent
- Chopper Input Overcurrent
- Inverter Overcurrent
- Inverter Over/Under voltage
- Inverter Overload
- 15 KVA UPS Overload (including Bypass)
- Inverter Output Current Limit
- Low Battery Voltage
- I/O not Synchronized
- Auto-transfer Mode
- Fuse Open
- Battery Discharging Mode
- KVA UPS Output Disabled

E. MECHANICAL DESIGN

1. 15 KVA UPS Enclosure:

   The 15 KVA UPS shall be in a freestanding, NEMA1 enclosure equipped with casters and leveling feet.

2. Cable Entry

   The 15 KVA UPS shall be provided with cable entry from the bottom, top and rear of the 15 KVA UPS enclosure.

3. Ventilation and Maintenance Requirements

   The 15 KVA UPS shall require the following minimum space for ventilation and maintenance: 28” (front), 18” (top), 6” (rear), and 0” (side). Ventilation for the space provides approximately 8 air changes per hour. Temperatures may range from 60 to 85 degrees F.

4. External Maintenance Bypass Switch (EMBPS)

   - Consisting of 3 separate circuit breakers; bypass input isolation, UPS output isolation, and maintenance bypass circuit breakers
   - EMBPS shall provide the capability of transferring the critical load from the UPS invertor to the maintenance bypass and then back to the UPS invertor with no interruption in critical load.
   - Circuit breakers shall be18KAIC rated minimum, Cutler Hammer EHD or equal
   - Make-before-break type

- Kirk key interlocked
- NEMA 1 Enclosure minimum

5. Bypass Isolation Transformer

   - Provide a separate dry type, delta-wye, three (3) phase, four (4) wire secondary, power transformer of the shielded isolated winding type. It shall step down the 480 volt three (3) phase supply to 208/120 VAC three (3) phase with neutral for bypass source.
   - The bypass isolation transformer shall be sized for 15 KVA or larger continuous load. The exact size shall be determined by the transformer manufacturer and the UPS manufacturer as a coordinated effort. Exact loads and loading characteristics (harmonics and waveform distortion) shall be taken into account when sizing the transformer.
   - The transformer temperature rise shall not exceed 120 degrees C at rated load and shall possess a Class H insulation system.

6. UPS Input Isolation Transformer

   - A dry type input isolation transformer shall be provided for the main AC input to the rectifier/battery charger and shall be mounted in the UPS cabinet. This isolation transformer shall have the same characteristics as specified the bypass isolation transformer above (paragraph 5).

7. Ethernet Network Card

Model Numbers	RMTI-EXT-R4
Package Content	120 VAC adapter, 5ft cord, 6ft configuration cable, 6ft communication cable, user manual, MIB files, program files
Network Port	10/100 Base T RJ-45 phone jack connector
Serial Port	Two asynchronous serial ports
Network Protocol	SNMP over UDP/IP : HTTP over TCP/IP : ARP, RARP, TFTP and ICMP
Network Security	SNMPv3, SSL, SSH
Supported MIB	MIB_II : Toshiba v1.2_MIB : JEMA MIB : RFC 1628
Operating Temperature	0 - 40°C
Operating Humidity	10 - 80%
Power Input	12 VDC unregulated
Power Consumption	2.0 Watts maximum
Size	134 mm (5.28") x 86 mm (3.40") x 27 mm (1.10") (L x W x H)
Weight	170 gm (0.38 lbs)
Regulatory	RoHS FCC Class A, UL, CUL, CE
Capability	1000, 1400, 1500, 1600EP, 1700, 1800, 4200FA & G8000

F. STANDARD FEATURES

1. Emergency Power Off (EPO)

   Emergency Power Off (EPO) terminals that trip open the 15 KVA UPS and battery circuit breakers.

2. RS232 Communication Interface

   Serial data link will enable the 15 KVA UPS to interface with a computer to provide power status and diagnostic information.

3. DB9 Dry Contact interface

   The following normally open dry contacts shall be provided through a DB9 male connector located inside the front door:

   - 15 KVA UPS On
   - Bypass Active
   - Input Power Loss
   - Battery Voltage Low

4. Battery Test Function

   The 15 KVA UPS shall be provided with a “Battery Test” pushbutton to periodically check the condition of the batteries. Upon detection of a battery problem, the 15 KVA UPS shall notify the user of this condition allowing the user to perform a detailed check of the battery string.

G. SERVICE AND WARRANTY

1. Reliability

   System mission reliability 240,000** hours and including bypass MTBF (Mean-Time-Between-Failure) shall be in excess of 3,000,000**hours.

2. Maintainability

   Calculated and demonstrated MTTR (Mean-Time-To-Repair) shall be 30 minutes including time to diagnose the problem and replace subassembly.

3. Warranty

   The 15 KVA UPS system shall be provided with a three-year on-site warranty. The warranty shall cover parts, labor, travel and freight for the 15 KVA UPS. The battery system has a full two-year warranty with 8 year’s prorata total of 10-year battery warranty.

   Typical on-site response time shall be 4 hours (24 hours maximum). The warranty period shall expire three years for UPS and two years for the battery system from date of shipment from manufacturer’s facility.

4. Inspection PM

   The 15 KVA UPS system shall be provided with an annual inspection of unit and batteries, Toshiba part # UPSPM3015MAJOR by an Authorized Toshiba International Corporation (TIC) service technician as detailed in the attached Toshiba "On-Site Services Request" form including travel time, mileage and normal hours.

   - ***Bidder's shall list the nearest factory-authorized service facility for servicing the complete unit or portions thereof and the number of factory-trained service technicians employed in the Bid Form – Service Facilities (Page 4).***

H. TOSHIBA 4200 FA MODEL NUMBERS

C42D3FI50 FAMXN	15KVA CM 480V ISO IN, 208Y AUX
T-15K-N1-42	NEMA1 480V Input 208/120 Out
MBS-80-23KK	MBS W/3 BKRS KIRK KEY INSTALL
T42-8C1585-D60	15KVA, 85 MW RUN TIME 288VDC
UPSSTARTUPO15	STARTUP 15KVA
RMTI-EXT-R4	UPS NETWORK CARD (EXT) RoHS
UPSPM3015MAJOR	PM INSPECTION

Note: Where Toshiba model number and written specification conflict, the written specification shall preside.

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RMTI-EXT-R4	UPS NETWORK CARD (EXT) RoHS
UPSPM3015MAJOR	PM INSPECTION

Note: Where Toshiba model number and written specification conflict, the written specification shall preside.

BID FORM – PRICING (Page 1)
RFB NO. 08-09-03 TOSHIBA 15KVA UPS BACKUP SYSTEM

Name of Firm _____

The undersigned declares that he/she has carefully examined the specifications and provisions of RFB No. 08-09-03 for furnishing one (1) Toshiba 15 KVA UPS Backup System, and hereby agrees to sell and deliver said equipment to the Central Contra Costa Sanitary District strictly in accordance with the specifications, terms and conditions of the RFB 08-09-03 heretofore described. The undersigned further declares that he/she has not directly or indirectly entered into an agreement, participated in any collusion or otherwise taken any action in restraint of free competitive bidding in connection with said RFB 08-09-03.

DESCRIPTION	QTY	UNIT COST	EXTENDED COST
Toshiba 15 KVA UPS Backup System Model: _____ Warranty: _____ Delivery: _____Calendar Days ARO	1	**$**	**$**
Delivery	**Lot**	**FOB Destination Martinez, CA**	**$**
CA Sales Tax (8.25%)			**$**
TOTAL			**$**
1) Start Up		**$**	**$**
2) Training		**$**	**$**
3) Annual Inspection – Single Year		**$**	**$**
4) Option - Annual Inspection – Multi Year ____		**$**	**$**

_____Initial

BID FORM – PRICING (Page 2)
RFB NO. 08-09-03 TOSHIBA 15 KVA UPS BACKUP SYSTEM

Payment Terms/Discount:
Discounts will be considered in evaluating this bid. If a discount is offered, it is required that a minimum of twenty (20) days be allowed for payment in order for the discount to be considered a factor in the evaluation of this bid.

Federal Tax I.D. No. _____

Cooperative Purchases by Other Agencies Allowed: _____Yes _____ No

_____
Name of Firm

_____
Business Address ***City*** ***State*** ***Zip***

_____
Telephone No. ***Fax No.***

_____
E-Mail Address

_____
Authorized Signature ***Name of Person Authorized to Sign***

BID FORM - STATEMENT OF COMPLIANCE (Page 3)
RFB NO. 08-09-03 TOSHIBA 15 KVA UPS BACKUP SYSTEM

The undersigned declares that he/she has carefully examined the specifications and provisions of RFB No. 08-09-03 for furnishing one (1) Toshiba 15 KVA UPS Backup System and agrees to comply with said specifications and provisions. Any exceptions to the specifications are stated below.

Note: Exceptions must be listed by section number, subsection number and title. Any exceptions not listed will be disallowed and equipment shall be provided as specified. ***Provide additional sheets as necessary.***

A. The equipment provided my firm meets all specifications listed _____ (Initial)

B. The equipment provided my firm meets all specifications of RFB 08-09-03 with the following exceptions *(If None, state "No Exceptions Taken")*:

_____

Name of Firm

_____ _____

Authorized Signature ***Name of Person Authorized to Sign***

BID FORM – SERVICE FACILITIES (Page 4)
RFB NO. 08-09-03 TOSHIBA 15 KVA UPS BACKUP SYSTEM

Factory authorized service facilities and factory-trained service technicians employed there that can be contacted for emergency work, twenty-four (24) hours a day, seven (7) days a week.

Facility Location 1

Business Address	***City***	***State***	***Zip***

Telephone No.	***Fax No.***

Technician A	***Phone 1***	***Phone 2***

Technician B	***Phone 1***	***Phone 2***

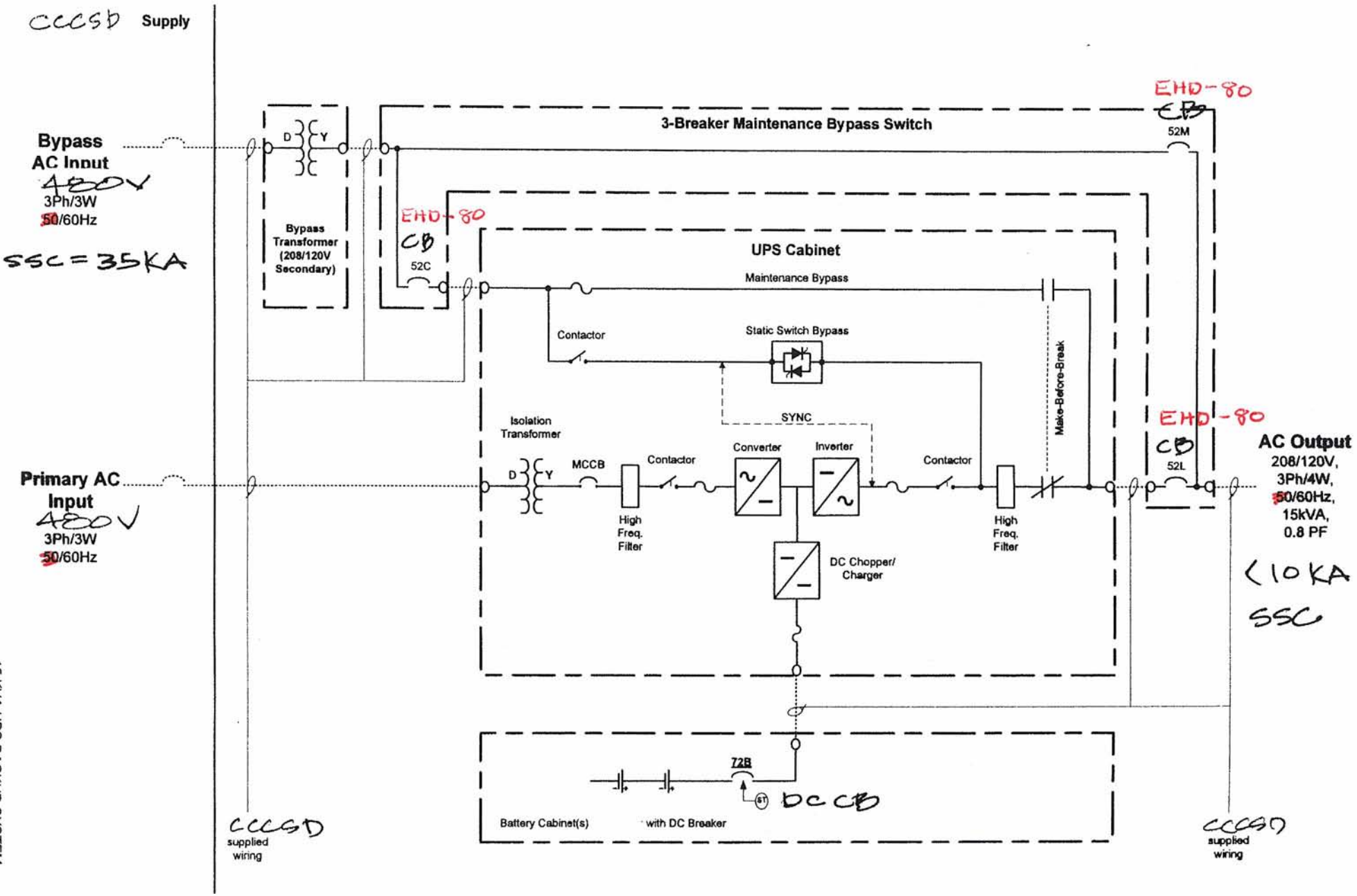
Facility Location 2

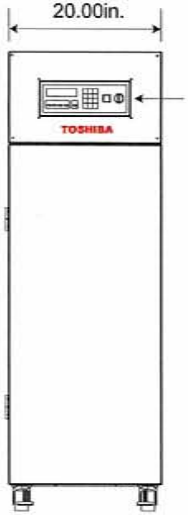
Business Address	***City***	***State***	***Zip***

Telephone No.	***Fax No.***

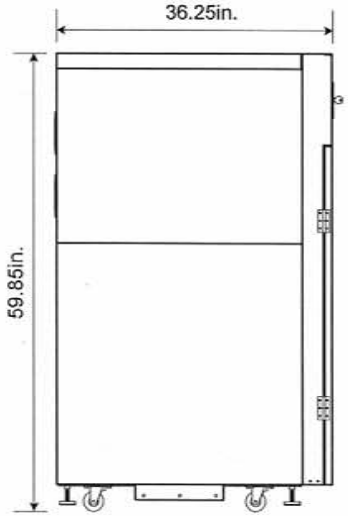
Technician A	***Phone 1***	***Phone 2***

Technician B	***Phone 1***	***Phone 2***

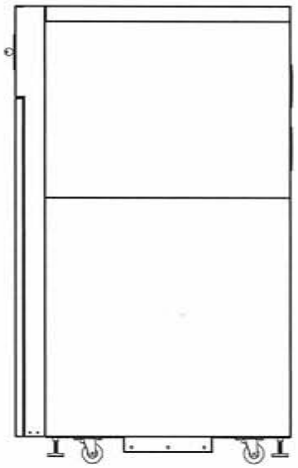

CCCSD Supply
Bypass AC Input
480V
3Ph/3W
50/60Hz
SSC = 35KA
Primary AC Input
480V
3Ph/3W
50/60Hz
Bypass Transformer (208/120V Secondary)
D
Y
EHD-80 CB 52C
3-Breaker Maintenance Bypass Switch
EHD-80 CB 52M
UPS Cabinet
Maintenance Bypass
Contactor
Static Switch Bypass
Make-Before-Break
SYNC
Isolation Transformer
MCCB
Contactor
Converter
Inverter
Contactor
High Freq. Filter
High Freq. Filter
DC Chopper/ Charger
EHD-80 CB 52L
AC Output
208/120V,
3Ph/4W,
50/60Hz,
15kVA,
0.8 PF
<10KA
SSC
72B
51
DC CB
Battery Cabinet(s)
with DC Breaker
CCCSD supplied wiring
CCCSD supplied wiring



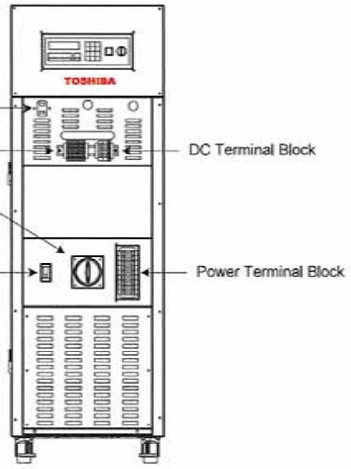
Front View



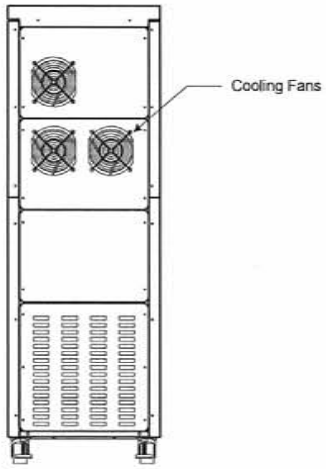
Right Side View



Left Side View



Front View
(door removed)



Rear View

	kVA Internal Transformer XT	Internal Battery CT
15	(1) transformer: 783 lbs. (2) transformers: 988 lbs.	(24) batteries: 900 lbs.
25/30	(1) transformer: 793 lbs. (2) transformers: 998 lbs.	(24) batteries: 910 lbs.

NOTES

1) This drawing is for illustration purposes only and is subject to change without notice. TIC is not responsible for any errors or omissions.

2) UPS enclosure type: NEMA 1 Free-standing.

Drawn by
EO
DATE 03/24/04

Modified by
JIS
DATE 03/24/04

TOSHIBA
INTERNATIONAL CORPORATION
Houston Texas, USA

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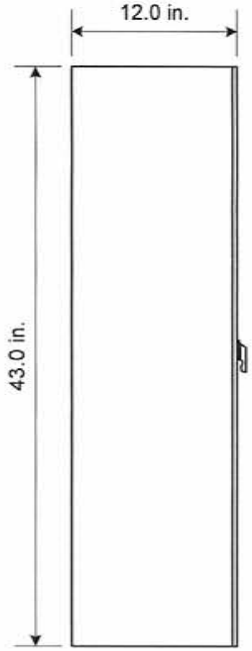
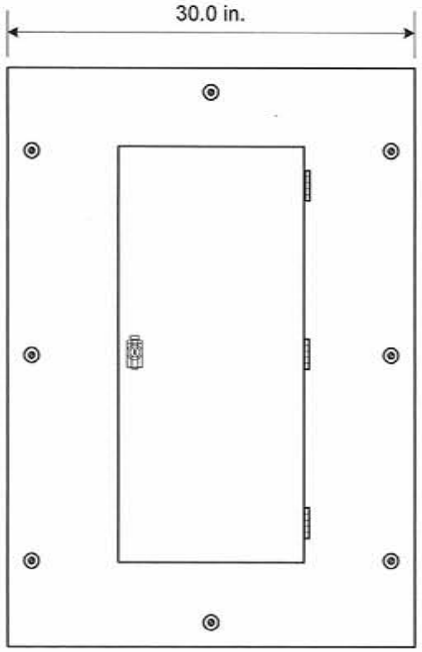
TITLE
Outline Diagram
4200*FA* UPS, 15 / 25 / 30kVA

DRAWING NO.
T42-15/25/30kVA

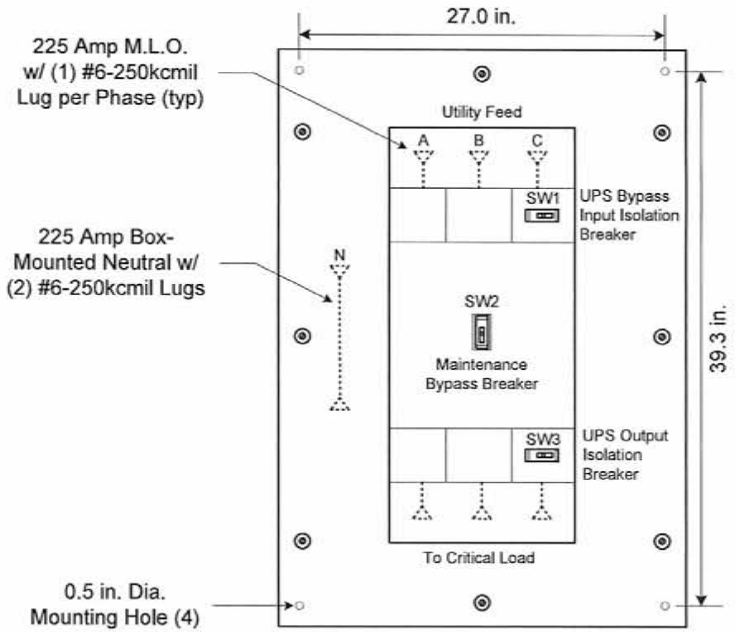
REV.
1.2



Left Side View



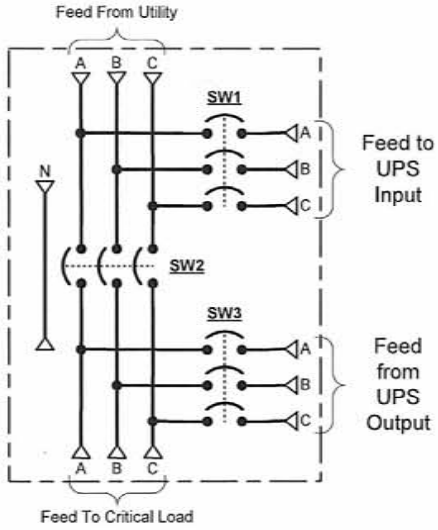
Front View



Front View
(Door Removed)

Part No.	UPS KVA	UPS Output Amp Rating	Breaker Type	Breaker Amps SW1/SW2/SW3	Voltage	kAIC rating @ 208/480V
MBS-80-23	15	41.6	EHD	80 / 80 /80	208	35 kAIC
	25	69.4				
MBS-225-23	50	138.8	ED	225 / 225 /225	208	35 kAIC
MBS-40-43	15	18.0	EHD	40 / 40 /40	480	35 kAIC
	25	30.1				
MBS-80-43	50	60.1	FD	80 / 80 /80	480	35 kAIC
MBS-125-43	80	90.2	FD	125 / 125 /125	480	35 kAIC

Enclosure - NEMA 1, Surface-Mount (UL Listed).
Box/Trim - 12-Gauge painted steel, trim held with adjustable clamps; Door equiped with one 3x5 directory cardholder and Corbin type 15767 Snaplock.
Finish - Beige polyester powdercoat on all surfaces, treated with sealer. Paint to match UPS
Breakers - Cutler-Hammer thermal-magnetic type, 225A frame, 3-pole, trip settings as shown, supplied with (1) #4-4/0 terminal lug per phase.
Cable Entry - Knockouts not provided. Cable entry may be located in top, bottom or sides.



NOTES
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DRAWN BY: JIS
DATE: 09/06/04

TOSHIBA
INTERNATIONAL CORPORATION
Houston Texas, USA

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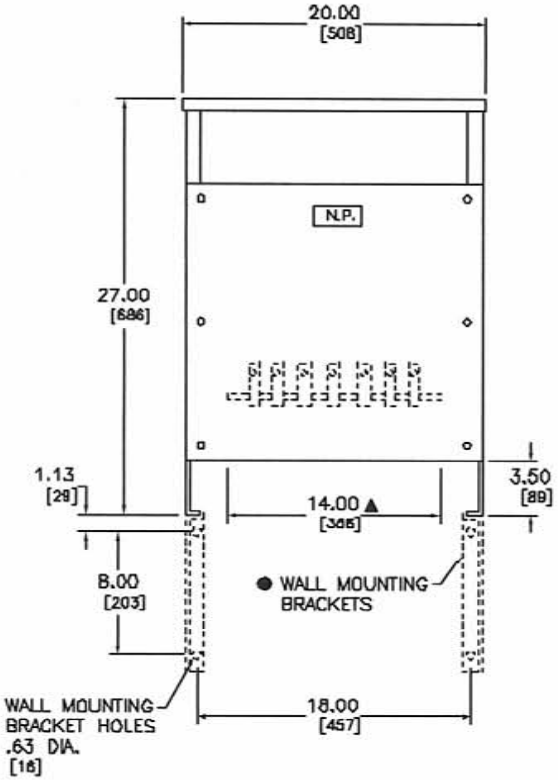
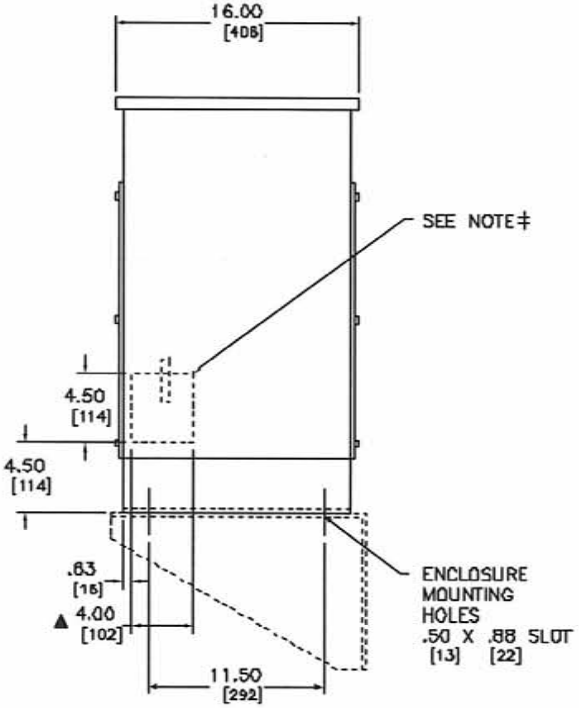
TITLE
4200*FA* UPS
3-Breaker Maintenance Bypass Panel

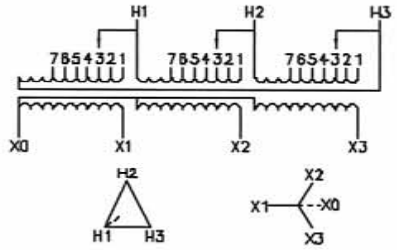
DRAWING NO. T42-MBS-X3
REV. 1.1

DRY-TYPE TRANSFORMERS
15-30 KVA 3Ø 60HZ
480V DELTA PRIMARY
NEMA 2 ENCLOSURE TYPE

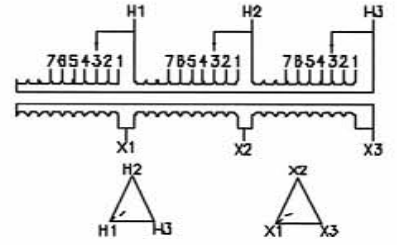




IN EACH PHASE CONNECT TO TAPS	
PRIMARY VOLTS	2-2.5% FCAN 4-2.5% FCBN
504	1
492	2
480	3
468	4
456	5
444	6
432	7



SECONDARY 208Y/120V 6 TAPS



SECONDARY 240V DELTA 6 TAPS

DUAL DIMENSIONS: INCHES / MILLIMETERS

KVA	CATALOG NUMBERS		GUAR. SOUND LEVEL IN DB'S	WGT LBS	AVG % Z
	208Y/120V SECONDARY	240V DELTA SECONDARY			
15	15T3H	15T6H	45	188	4.8
30	30T3H	30T6H	45	258	5.1

NOTES: UL LISTED
150°C RISE ABOVE 40°C AMBIENT
MINIMUM CLEARANCE OF 6.00(N 152MM BETWEEN VENT OPENINGS, WALL OR OTHER OBSTRUCTION.
USE WEATHERSHIELD CATALOG NO. WS363
● WALL MOUNTING BRACKET CATALOG NO. WMB381-382
▲ SPACE AVAILABLE IN BOTTOM FOR CUSTOMERS CONDUIT ENTRANCE.
‡ SPACE AVAILABLE ON BOTH ENDS FOR CUSTOMERS CONDUIT.

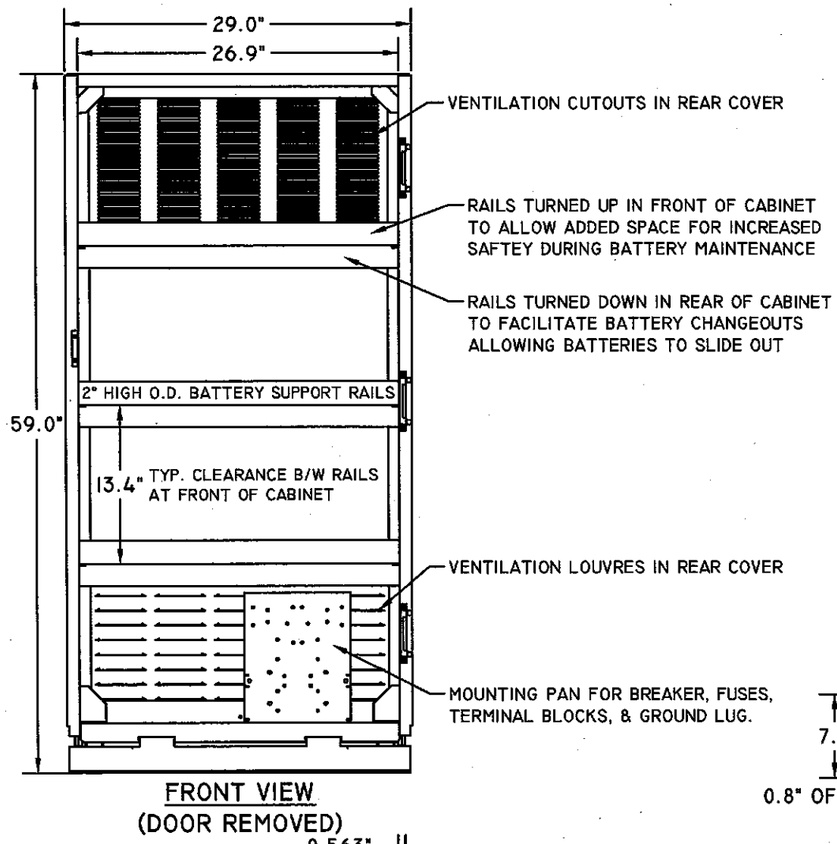
DRY-TYPE TRANSFORMERS
15-30 KVA 3PH 60 HZ
480V DELTA PRIMARY
NEMA 2 ENCLOSURE TYPE

SQUARE D
Schneider Electric

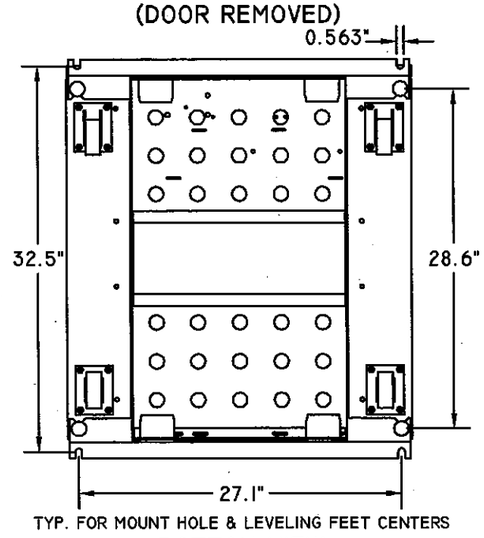
DWG# NO. 3536

JULY 2003

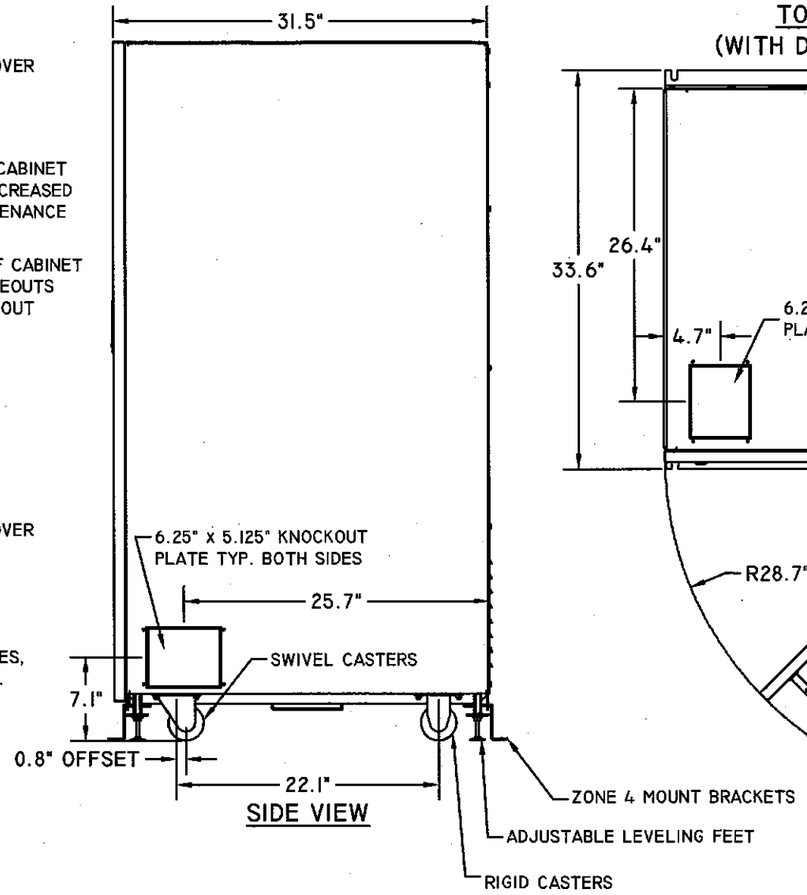
REF DWG #3538


29.0"
26.9"
59.0"
VENTILATION CUTOUTS IN REAR COVER
RAILS TURNED UP IN FRONT OF CABINET TO ALLOW ADDED SPACE FOR INCREASED SAFTEY DURING BATTERY MAINTENANCE
RAILS TURNED DOWN IN REAR OF CABINET TO FACILITATE BATTERY CHANGEOUTS ALLOWING BATTERIES TO SLIDE OUT
2" HIGH O.D. BATTERY SUPPORT RAILS
13.4" TYP. CLEARANCE B/W RAILS AT FRONT OF CABINET
VENTILATION LOUVRES IN REAR COVER
MOUNTING PAN FOR BREAKER, FUSES, TERMINAL BLOCKS, & GROUND LUG.

FRONT VIEW
(DOOR REMOVED)

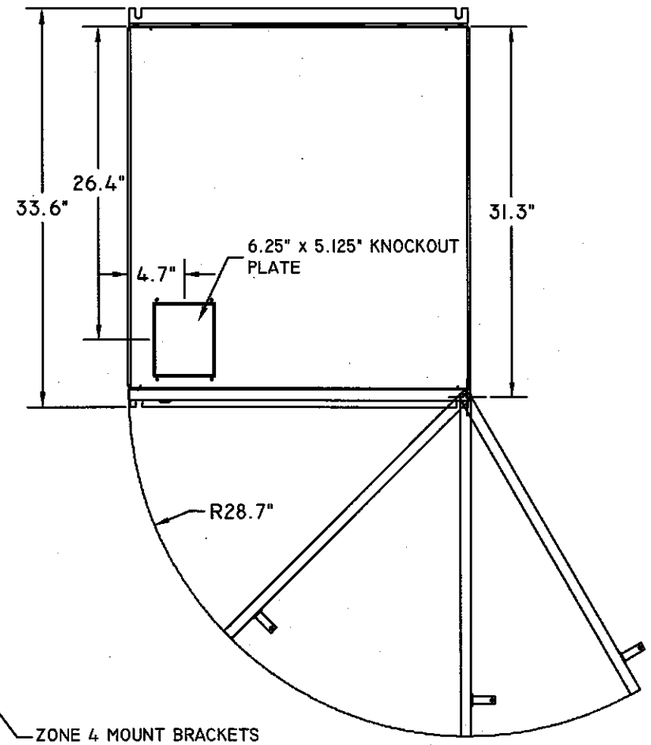


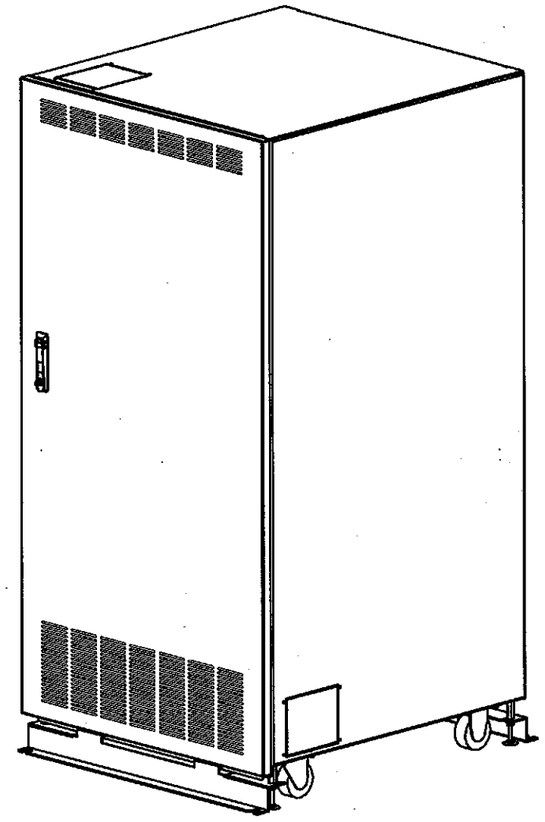
BOTTOM VIEW



SIDE VIEW

TOP VIEW
(WITH DOOR SWING)





ISOMETRIC VIEW

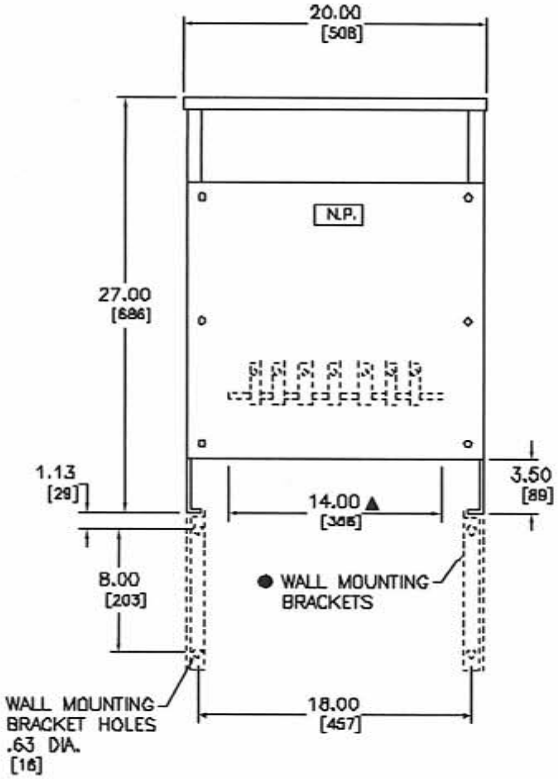
CABINET NOTES:

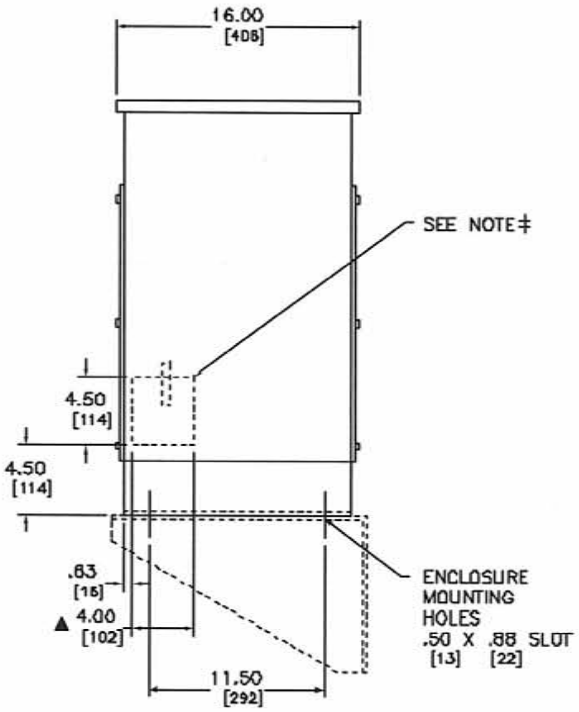
EMPTY CABINET WEIGHT: 375 Lbs.

1. NEMA 1 ENCLOSED BATTETRY CABINET.
2. FACTORY ASSEMBLED CABINETS ARE ULI778 LISTED & CSA LISTED 22.2 NO. 107.1-M95
3. CABINET IS ZONE 4 RATED AND CERTIFIED (SEE ZONE 4 ANCHORAGE DRAWING FOR DETAILS)
4. CABINET BODY IS 10 GA. COLD ROLLED STEEL.
5. DOOR AND REAR COVER ARE 16 GA. COLD ROLLED STEEL.
6. BATTERY RAILS ARE 10 GA. COLD ROLLED STEEL.
7. BATTERY TRAYS ARE 12 GA. GALVANIZED STEEL.
8. FOR EASE OF CONDUIT INSTALLATION, (1) 6.25"x5.125", 16 GAUGE CONDUIT KNOCKOUT PLATE IS PROVIDED TO REPLACE ONE OF THE 10 GAUGE KNOCKOUTS IN THE CABINET.
9. PAINT IS CY GRAY POWDER COAT, OVEN BAKED FOR CHIP & CORROSION RESISTANT FINISH. Paint to match UPS
10. BATTERIES CAN BE ACCESSED FROM THE FRONT AND REAR.
11. CABINET IS SUPPLIED ON SKID WITH HEAVY DUTY RAMP FOR EASY UNLOADING. CABINET IS TO BE MOVED USING THE CABINET CASTERS.

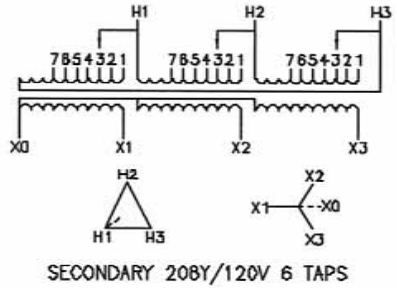
DRAWN BY: MP	DATE 10/13/05	THIS MATERIAL IS THE EXCLUSIVE PROPERTY OF TOSHIBA INTERNATIONAL CORPORATION AND SHALL NOT BE REPRODUCED, USED OR DISCLOSED TO OTHERS UNLESS PRIOR WRITTEN AUTHORIZATION IS OBTAINED.	TITLE: BC25 BATTERY CABINET 91425SDTI	SCALE NTS	ORDER NO.
CHECKED BY	DATE			DRAWING NO.	
APPROVED BY	DATE	TOSHIBA INTERNATIONAL CORPORATION 13131 WEST LITTLE YORK ROAD. HOUSTON, TX. 77041 U.S.A.		SH. 1	OF 1

DRY-TYPE TRANSFORMERS
15-30 KVA 3Ø 60HZ
480V DELTA PRIMARY
NEMA 2 ENCLOSURE TYPE

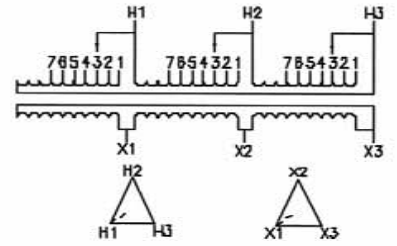




IN EACH PHASE CONNECT TO TAPS	
PRIMARY VOLTS	2-2.5% FCAN 4-2.5% FCBN
504	1
492	2
480	3
468	4
456	5
444	6
432	7



SECONDARY 208Y/120V 6 TAPS



SECONDARY 240V DELTA 6 TAPS

DUAL DIMENSIONS: INCHES / MILLIMETERS

KVA	CATALOG NUMBERS		GUAR. SOUND LEVEL IN DB'S	WGT LBS	AVG % Z
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15	15T3H	15T6H	45	188	4.8
30	30T3H	30T6H	45	258	5.1

NOTES: UL LISTED
150°C RISE ABOVE 40°C AMBIENT
MINIMUM CLEARANCE OF 6.00IN 152MM BETWEEN VENT OPENINGS, WALL OR OTHER OBSTRUCTION.
USE WEATHERSHIELD CATALOG NO. WS363
● WALL MOUNTING BRACKET CATALOG NO. WMB361-362
▲ SPACE AVAILABLE IN BOTTOM FOR CUSTOMERS CONDUIT ENTRANCE.
‡ SPACE AVAILABLE ON BOTH ENDS FOR CUSTOMERS CONDUIT.

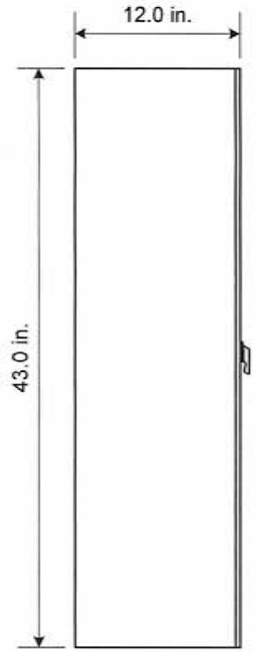
DRY-TYPE TRANSFORMERS
15-30 KVA 3PH 60 HZ
480V DELTA PRIMARY
NEMA 2 ENCLOSURE TYPE

SQUARE D
Schneider Electric

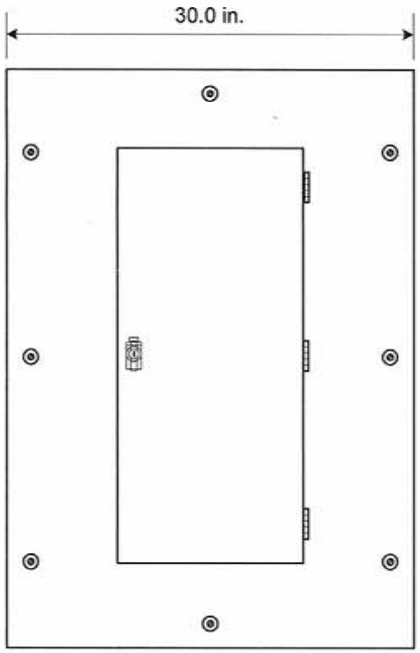
DWG# NO. 3536

JULY 2003

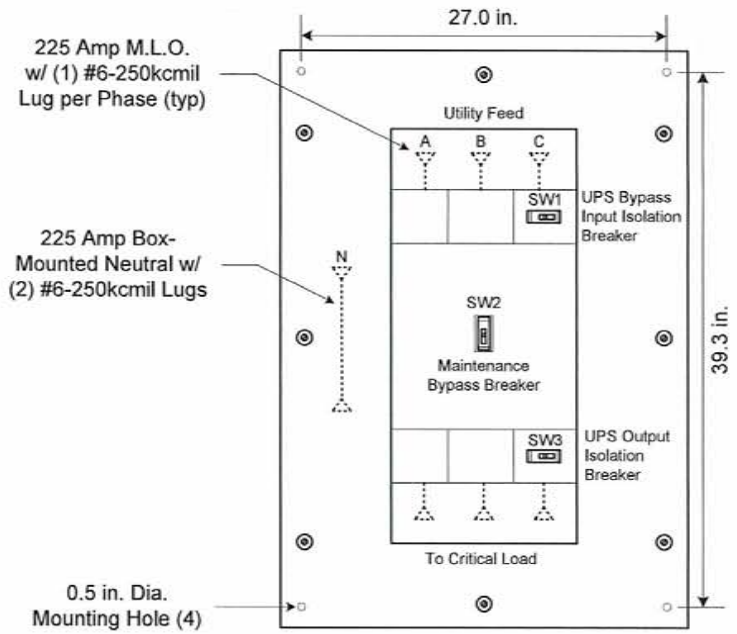
REF DWG #3538



Left Side View



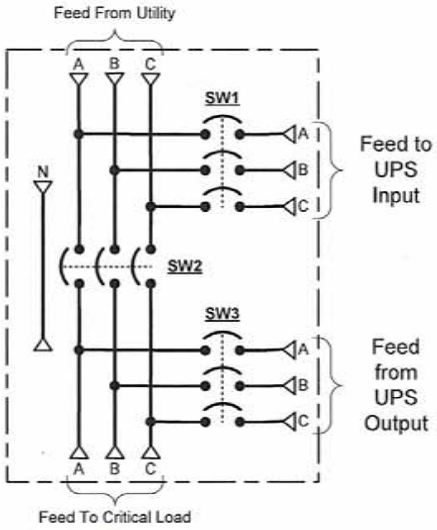
Front View



Front View
(Door Removed)

Part No.	UPS KVA	UPS Output Amp Rating	Breaker Type	Breaker Amps SW1/SW2/SW3	Voltage	kAIC rating @ 208/480V
MBS-80-23	15	41.6	EHD	80 / 80 /80	208	35 kAIC
	25	69.4				
MBS-225-23	50	138.8	ED	225 / 225 /225	208	35 kAIC
MBS-40-43	15	18.0	EHD	40 / 40 /40	480	35 kAIC
	25	30.1				
MBS-80-43	50	60.1	FD	80 / 80 /80	480	35 kAIC
MBS-125-43	80	90.2	FD	125 / 125 /125	480	35 kAIC

Enclosure - NEMA 1, Surface-Mount (UL Listed).
Box/Trim - 12-Gauge painted steel, trim held with adjustable clamps; Door equiped with one 3x5 directory cardholder and Corbin type 15767 Snaplock.
Finish - Beige polyester powdercoat on all surfaces, treated with sealer. Paint to match UPS
Breakers - Cutler-Hammer thermal-magnetic type, 225A frame, 3-pole, trip settings as shown, supplied with (1) #4-4/0 terminal lug per phase.
Cable Entry - Knockouts not provided. Cable entry may be located in top, bottom or sides.



NOTES
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DRAWN BY: JIS
DATE: 09/06/04

TOSHIBA
INTERNATIONAL CORPORATION
Houston Texas, USA

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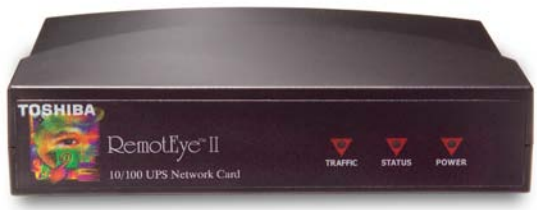
TITLE
4200*FA* UPS
3-Breaker Maintenance Bypass Panel

DRAWING NO. T42-MBS-X3
REV. 1.1

TOSHIBA

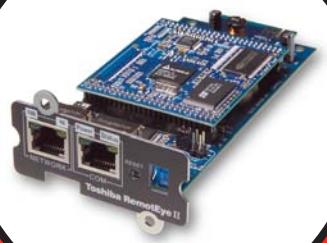
UNINTERRUPTIBLE POWER SYSTEMS



RemotEye® II

XT

Reliability *in motion*®

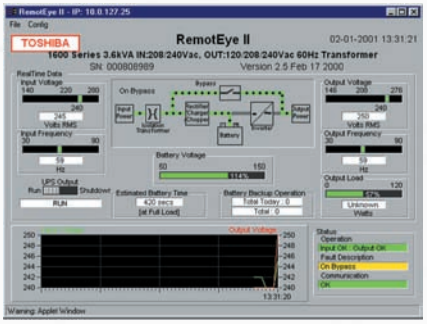


- Provides Management of UPS through Web Browser
- Provides Management of UPS through SNMPv1 and SNMPv3
- Supports Flash Upgrade through Network
- Provides Shutdown of Remote Client on LAN
- Provides Versatile Power Management Control
- Provides E-Mail Notification of UPS Status and UPS Events
- Provides Remote Control of UPS through Internet

TOSHIBA RemotEye II Web/SNMP Network Adapter

Versatile Power Management

RemotEye II is your complete Toshiba Uninterruptible Power Systems (UPS) management solution! RemotEye II is a tool designed to control and monitor Toshiba UPS remotely via Simple Network Management Protocol (SNMP) and Hypertext Transfer Protocol (HTTP/web browser) methods. In addition, when a power outage occurs, notification can be sent to the network administrators or maintenance personnel. Should a prolonged power outage occur, RemotEye II can initiate an orderly shutdown to connected servers to minimize any risk of data loss.



The monitor applet offers real-time analysis of UPS operation.

SNMP Ability

The RemotEye II provides an SNMP interface for Toshiba UPS. This allows easy integration of UPS management into an existing SNMP Network Management System. At any given time, SNMP queries can poll the RemotEye II agent for the current status of its connected Toshiba UPS. RemotEye II supports SNMPv1 and SNMPv3.

HTTP Familiarity

The RemotEye II provides an HTTP interface for Toshiba UPS. This allows easy access of Toshiba UPS information from any machine with a web browser. A network workstation or management station can open a RemotEye II website. Through the website, UPS information can be configured and monitored. RemotEye II also provides access to three java applets for monitoring, event login and trend analysis. The RemotEye II also supports secure socket layer (SSL) for web security.

RemotEye II's web interface allows a user to view the protected machines RemotEye II oversees.

Shutdown Capability

Application software is also included with the RemotEye II. This software allows RemotEye II to notify and shutdown important network servers. Through the existing network connections, RemotEye II can handle your unattended server shutdown needs.

E-mail Notification

The RemotEye II provides E-Mail notification of UPS status and UPS events to designated email reciepients. Through the RemotEye II website, E-Mail notification can be sent out with events log or status report or both status and events logs attached. Daily status report provides the condition of the UPS for the last 24 hours, it can be configuration to send out at a specific time of the day.

Option - Environmental Monitoring Device (EMD)

Temperature and humidity sensors provide complete environmental monitoring. This EMD device also provides two sets of user defined dry contacts for monitoring. EMD part number: RMTI-EMD-HT.

	RemotEye II / Internal Hardware	RemotEye II / External Hardware
Model Numbers	RMTI-INT-R4	RMTI-EXT-R4
Package Content	UPS power provided, 6ft configuration cable, user manual, MIB files, program files	120 VAC adapter, 5ft cord, 6ft configuration cable, 6ft communication cable, user manual, MIB files, program files
Network Port	10/100 Base T RJ-45 phone jack connector	
Serial Port	One asynchronous serial port	Two asynchronous serial ports
Network Protocol	SNMP over UDP/IP : HTTP over TCP/IP : ARP, RARP, TFTP and ICMP	
Network Security	SNMPv3, SSL, SSH	
Supported MIB	MIB_II : Toshiba v1.2_MIB : JEMA MIB : RFC 1628	
Operating Temperature	0-40°C	
Operating Humidity	10-80%	
Power Input	8-12 VDC unregulated	12 VDC unregulated
Power Consumption	1.5 Watts maximum	2.0 Watts maximum
Size	130 mm (5.12") x 60 mm (2.36") (L x W)	134 mm (5.28") x 86 mm (3.40") x 27 mm (1.10") (L x W x H)
Weight	80 gm (0.2 lbs)	170 gm (0.38 lbs)
Regulatory	RoHS FCC Class A : CE Class A	RoHS FCC Class A, UL, CUL, CE
Capability	Supports Toshiba 1000, 1600EP, 1700, 1800	Support Toshiba 1000, 1400, 1500, 1600EP, 1700, 1800, 4200FA, G8000

UPS ADJUSTABLE SPEED DRIVES MOTORS CONTROLS INSTRUMENTATION PLC

TOSHIBA

Available Through:

TOSHIBA INTERNATIONAL CORPORATION

INDUSTRIAL DIVISION

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Leading Innovation >>>

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Uninterruptible Power Supply (UPS) On-Site Services Request

When requesting On-Site Services please fill out the following and return by fax to Toshiba International Corporation (TIC), 713-896-5212. No cover sheet is required. In the event the equipment is covered under product warranty, services will not be billed. The Request for On-Site Services form must be returned with a signed TIC Schedule of Time & Material (T&M) Field Service Rates or a service proposal based upon fixed pricing.

Customer Information:

Your Work Site Information	*Your Billing Information
5019 IMHOFF PLACE	
MARTINEZ,	
CA	
94553	

P.O. Number (Required)
Person Requesting Service Mark Cavallero

Point of Contact
Email Address
Phone Number 925-689-3890
Cell Phone Number
Fax Number
Equipment Information:
Equipment Model
Typeform / Model Number
Serial Number
Application

Please describe the reason(s) on-site services are desired. Please include symptoms, fault codes, that have been observed:

*Please indicate time frame in which services are desired to occur:

Start Date	_____	Start Date	_____
Start Time	_____	Start Time	_____
End Date	_____	End Date	_____
End Time	_____	End Time	_____

**Signature of Approving Authority: _____ Date: _____

Type or Print Name: _____

* Services for non-warrantable conditions are billable at TIC's published standard rates. Delays in work, whether or not for a warrantable condition, that are not attributable to TIC may be billable at the published standard rates.
** Signature of customer representative with authority to approve request for service. Signature acknowledges receipt of and agreement to the terms outlined in this document, including without limitation TIC Standard Terms and Conditions of Sale. Signatures are required.
*** TIC does not warrant that the services will ensure continued, uninterrupted or optimal performance of the equipment or facility.
Rev: 09/09/03

TOSHIBA

Toshiba International Corporation
13131 West Little York Road
Houston, Texas 77041
Phone: 877-867-8773
Fax: 713-896-5212
Email: upsservice@tic.toshiba.com

Test Report
Three Phase Preventive Maintenance

Customer Name:_____

Location:_____

UPS Typeform:_____

Serial Number:_____

Battery Cabinet Model Number:_____

Battery Date Code:_____

Date:_____

Technician:_____

The following checklist is to be used as a guide for Technicians trained and certified by Toshiba International Corporation in the maintenance of Toshiba three phase UPS. All steps must be completed. When any step cannot be performed due to circumstances beyond the Technician's control, an explanation of the circumstances must be included with this report.

The use of this guide does not relieve the Technician performing this procedure from the responsibility for the safe and proper installation, operation, and maintenance of the UPS and the Customer's critical load. Furthermore, this procedure does not relieve the technician from adhering to Electrical Safety standards and safe work practices. It is only a guide, and must be utilized as such.

Toshiba International Corporation shall not be responsible for the results obtained from the use of this guide. All items to be checked must be supplemented by the knowledge, training, and thoughtful work procedures of the Technician involved. The use of this guide shall not guarantee integrity of the warranty where other mitigating circumstances are shown to prevail.

Prior to commencing this procedure, the Technician will place the UPS in external Maintenance Bypass. This places the critical load on utility power for the duration of the agreed upon work. If an external bypass system in not installed, then the Technician will obtain the Customer's approval to place the UPS offline, and interrupt power to the critical load.

1. Physical Inspection

A. Environmental Check (Consult Service Manual for Specifications)

i.	Ambient temperature of UPS	Temperature: ____°F
ii.	Ambient temperature of Batt. Cab.	Temperature: ____°F
iii.	Clearances	Left side: ____ inches
		Right side: ____ inches
		Back side: ____ inches
		Front side: ____ inches

Comments:

B. Visual Inspection

i. Structure

1.	Paint	OK☐	Damaged☐
2.	Frame	OK☐	Damaged☐
3.	Covers	OK☐	Damaged☐
4.	Doors	OK☐	Damaged☐
5.	Warning Labels	OK☐	Damaged☐
6.	Name Plates	OK☐	Damaged☐

ii. Parts Assembly

1.	Screws	OK☐	Damaged☐
2.	Foreign materials (dirt, metal, etc.)	OK☐	Damaged☐

Comments:

2. Electrical Analysis

A. Component Damage

i.	Main Control PCB	OK☐	Damaged☐
ii.	Gate Drive PCB	OK☐	Damaged☐
iii.	Charger PCB	OK☐	Damaged☐
iv.	Relays/Contactors	OK☐	Damaged☐
v.	Resistors	OK☐	Damaged☐
vi.	Transistors	OK☐	Damaged☐
vii.	SCR's	OK☐	Damaged☐
viii.	Heatsinks	OK☐	Damaged☐
ix.	Other:	OK☐	Damaged☐

Comments:

B. Power Circuit Inspection

i.	Loose input/output/battery connections	OK☐	Damaged☐
ii.	Safety ground	OK☐	Damaged☐
iii.	Loose power circuit bus/cable connections	OK☐	Damaged☐

Comments:

C. Control Circuit Inspection

i. Loose or improper seating of connectors OK☐ Damaged☐

ii. Position of Dip Switches OK☐ Damaged☐

Comments:

3. Operational Characteristic Tests

A. Input Voltage Checks (Consult Service Manual for Specifications)

i. Input Voltage Check (DMM

A-B_____Vac B-C_____Vac C-A_____Vac

ii. Input Voltage Check (LCD)

A-B_____Vac B-C_____Vac C-A_____Vac

iii. Bypass Voltage Check (DMM)

A-B_____Vac B-C_____Vac C-A_____Vac

iv. Bypass Voltage Check (LCD)

A-B_____Vac B-C_____Vac C-A_____Vac

v. Battery Input (nominal voltage)

P-N_____

Comments:

B. Control Power Checks (Consult Service Manual for Specifications)

i. P24 (+24Vdc power supply) _____Vdc

ii. P15 (+15Vdc power supply) _____Vdc

iii. N15 (-15Vdc power supply) _____Vdc

iv. P5 (+5Vdc power supply) _____Vdc

Comments:

C. Battery Specifications (Consult Service Manual for Specifications)

i. Battery Type (Model Number) _____

ii. AmpHour Rating _____ AH

iii. Individual battery test (see Battery test table) OK☐ Damaged☐

iv. Float Voltage (DMM) _____Vdc

v. Float Voltage (LCD) _____Vdc

vi. Equalize Voltage (Flooded Cell Only) _____Vdc Not Used☐

Comments:

D. Converter Operation (Consult Service Manual for Specifications)

i. DC Bus Voltage (DMM)_____Vdc

ii. DC Bus Voltage (LCD)_____Vdc

Comments:

E. Output Voltage Checks on Bypass (Consult Service Manual for Specifications)

i. Output Voltage Check (DMM)

A-B_____Vac B-C_____Vac C-A_____Vac

A-N_____ Vac B-N_____Vac C-N_____Vac

ii. Output Voltage Check (LCD)

A-B_____Vac B-C_____Vac C-A_____Vac

A-N_____ Vac B-N_____Vac C-N_____Vac

iii. Output Voltage Check (Oscilloscope)

A-B_____Vpk B-C_____Vpk C-A_____Vpk

A-N_____Vpk B-N_____Vpk C-N_____Vpk

iv. Output Current Check (DMM)

A_____Amps B_____Amps C_____Amps

v. Output Current Check (LCD)

A_____Amps B_____Amps C_____Amps

Comments:

Output Voltage Checks on Inverter (Consult Service Manual for Specifications)

vi. Output Voltage Check (DMM)

A-B_____Vac B-C_____Vac C-A_____Vac

A-N_____ Vac B-N_____Vac C-N_____Vac

vii. Output Voltage Check (LCD)

A-B_____Vac B-C_____Vac C-A_____Vac

A-N_____ Vac B-N_____Vac C-N_____Vac

viii. Output Voltage Check (Oscilloscope)

A-B_____Vpk B-C_____Vpk C-A_____Vpk

A-N_____Vpk B-N_____Vpk C-N_____Vpk

ix. Output Current Check (DMM)

A_____Amps B_____Amps C_____Amps

x. Output Current Check (LCD)

A_____Amps B_____Amps C_____Amps

Comments:

Output Voltage Checks on Battery (Consult Service Manual for Specifications)

xi. Output Voltage Check (DMM)

A-B_____Vac B-C_____Vac C-A_____Vac

A-N_____ Vac B-N_____Vac C-N_____Vac

xii. Output Voltage Check (LCD)

A-B_____Vac B-C_____Vac C-A_____Vac

A-N_____ Vac B-N_____Vac C-N_____Vac

xiii. Output Voltage Check (Oscilloscope)

A-B_____Vpk B-C_____Vpk C-A_____Vpk

A-N_____Vpk B-N_____Vpk C-N_____Vpk

Comments:

F. Display

i.	LED operation	OK☐	Damaged☐
ii.	Keypad Operation	OK☐	Damaged☐
iii.	Alarm buzzer	OK☐	Damaged☐
iv.	Emergency Power Off (EPO)	OK☐	Damaged☐

Comments:

4. Post Operational Checks

A. Clean unit

i. Internal

ii. External

Comments:

Test Report
Battery Preventative Maintenance

Battery	No-Load Voltage	Full-Load Voltage	Battery Type	Date Code
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
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Comments: